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COMPARING GLACIER NATIONAL PARK WITH THE HIGH SIERRA

By Perry Evans

HOW did the 1924 trip of the Sierra Club compare with previous outings in our "own" mountains? This question is asked so continually that the following impressions may interest those who were unable to join in our excursion into the Rockies.

The mountains of Glacier Park have no foothills. They were formed by a folding and overlap of the earth's crust in such a manner as to leave, after erosion, two parallel mountain chains about eight miles apart. From the western base of the Livingston (western) range to the eastern base of the Lewis (eastern) range is not over twenty-five miles in a straight line. Numerous glacial lakes, from six to ten miles long, surrounded by dense evergreen forests, lie at the foot of the mountains, so that from the east, the west, or the north the first views of the mountains are usually had across these lakes with their forested slopes—a splendid setting. The lakes lie at an elevation of from three thousand to five thousand feet, and, as the mountains rise quite abruptly four thousand or five thousand feet above them, they have an awe-inspiring majesty which even the highest peaks in the Sierra Nevada do not possess, notwithstanding their greater altitude above the sea.

On closer contact, however, you feel that the individual mountains lack something of the dignity of those of the Sierra. This is due to

their structure and form. There is no granite in their make-up; the mountains are huge blocks of stratified rock, weathered and eroded often into striking form, but without quite the same appeal as the white granitic domes, pinnacles, and other mountain masses of the Sierra. There is, however, a variety of color (particularly noticeable being the red and green argillite), which is one of the principal elements of beauty in the glorious pictures which take in lake, mountain, forest, cliff, and waterfall.

These comprehensive views constitute the glory of Glacier Park. There is a magnificence to their scope which quite dwarfs most of the scenic features of the Sierra by comparison. There is no single cliff to compare in beauty with Half Dome or El Capitan, with Tehipite Dome or with Langille Peak; but there are great precipitous cliffs everywhere, often thousands of feet in height. While there is no waterfall which can be mentioned in the same breath with Yosemite, Nevada, Vernal, or Bridal Veil, yet there are a hundred waterfalls and cascades of great height and many of great beauty. There are, perhaps, no such jewels as Rae Lake or Evolution Lake or Bullfrog Lake; yet the lakes in Glacier are very numerous, and in addition to the large forest-hemmed lakes, which have a great deal of sameness in their composition, there are smaller lakes of surprising beauty and individuality, such as Iceberg Lake, Hidden Lake, and Lake Ellen Wilson. Glacial silt gives some, such as Avalanche Lake, a peculiar milky greenness which adds to the riot of color.

There is no one wild flower in the park with the entrancing beauty of our tiger-lily. There are no meadows crimsoned as are the Sierra meadows with the glorious shooting-star, no superb field of bleeding-heart as greets one at Alta Meadow. Yet there are glorious purple gentians, luxurious red monkey-flowers, and such a continuous riot of color on many of the open mountainsides from the bear-grass flower, the many-hued Indian paint-brush, and other blossoms, that upon the whole the flowers are a more predominant feature of the landscape than in the Sierra. There is also a much greater abundance and variety of animal life. Rocky Mountain sheep, deer, goats, and bears are plentiful, and there are beavers, porcupines, fool-hens, ptarmigans, marmots, and squirrels. There are said to be elk and moose, though most of us are still from Missouri on that point.

The Montana forests, composed of larch, hemlock, cedar, pine, and fir, grow very dense and make a beautiful covering for the lower

slopes of the mountains; but to a Californian they are disappointing to travel through—one cannot say "wander" through, because the stand is too dense and there is too much fallen timber for any such pastime, and one is confined to the trails. There are no large trees, and, while no one expects to meet a sequoia, the eye searches in vain for any tree comparable to our ponderous yellow pines or our magnificent firs. Partly for this reason, the camp-sites in the forested region are not nearly so attractive.

The glaciers, of course, are numerous, many of them quite accessible, and they are interesting to explore. As features of the scenery, however, few of them are large enough to be particularly distinctive. They give practically the same effect as a large snow-bank. Only two or three are larger than the glacier on the east side of the North Palisade.

It would appear, then, that we have in the Sierra Nevada features surpassing, or at least equal to, practically all of the individual features of Glacier National Park, except the stupendous bulk of the mountains. We have to go to the lone volcanic mountains like Mount Shasta and San Jacinto to find individual mountains in California that surpass the peaks of Glacier in majesty. On the other hand, the geography of this section of the Rockies is such that comprehensive views can be had on all sides which include so much of magnificence and rugged grandeur in one picture that their equal is hard to find in the Sierra.

If we should except the Yosemite as viewed from Inspiration Point as being unique and incomparable, it is probably correct to say with respect to the most magnificent views to be had in either region that each is so wonderful in its own way that neither can be said to surpass the other. I think few will hesitate to concede that the most superb view to be had in Glacier Park is the one looking up Crossley Lake toward Mount Kip and Cathedral Peak; the towering mountains, the numerous waterfalls, the artistic balance of the picture, the glorious coloring, particularly at sunset—these can never fade from one's memory.

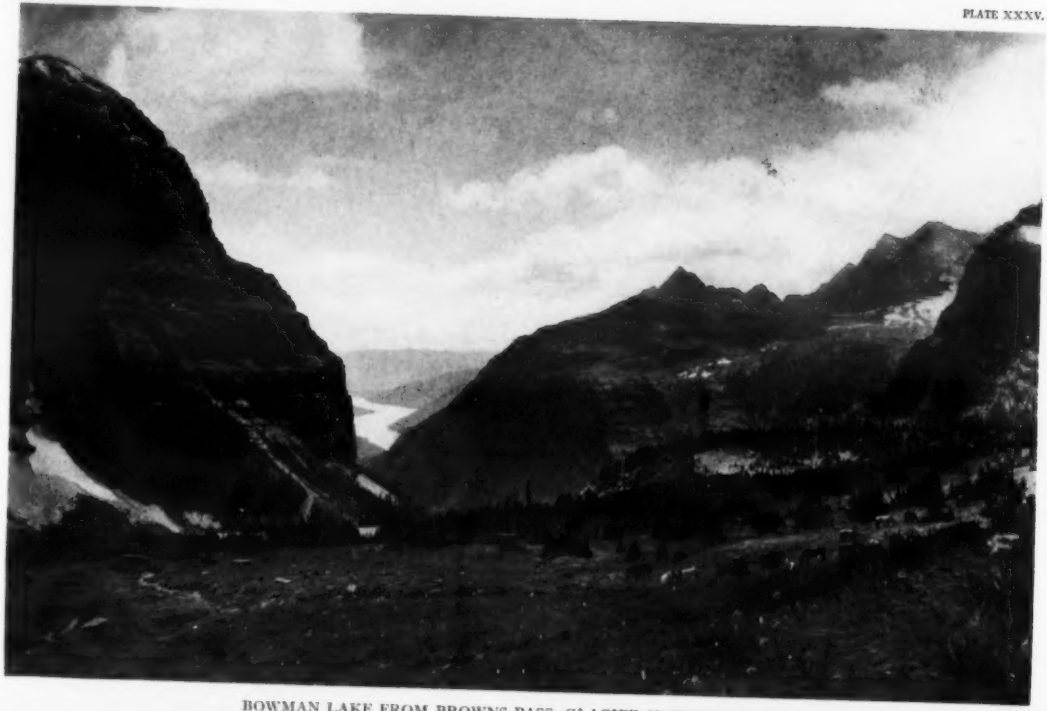
The frequent rains, coupled with the absence of big trees, and roaring streams at the higher altitudes, make camping out less attractive than it is "at home"; and the density of the forests at the lower levels and the precipitous sides of most of the high mountains serve to restrict the cross-country exploring which Sierra Club members

glory in. The best way to traverse the park is by traveling from chalet to chalet. The erection of two or three more chalets in the northern part of the park would enable one to cover almost the entire park in this way.

As a scenic wonderland, Glacier Park probably excels any equal area of the Sierra Nevada. As a place to visit frequently, and in which to wander in the open, it does not furnish quite the joy or the exhilaration that comes from a trip through the high and white Sierra.

AVALANCHE LAKE, GLACIER NATIONAL PARK
Photograph by Walter L. Huber

AVALANCHE LAKE, GLACIER NATIONAL PARK
Photograph by Walter L. Huber



BOWMAN LAKE FROM BROWNS PASS, GLACIER NATIONAL PARK
Photograph by Walter L. Huber

BOWMAN LAKE FROM BROWNS PASS, GLACIER NATIONAL PARK
Photograph by Walter L. Huber

A VACATION TRIP THROUGH GLACIER NATIONAL PARK*

By E. I. Lawrence

MY descriptive powers are in no way equal to the task of giving or conveying to another mind half the harmonious beauty hovering in and over the mountains of our Glacier National Park.

In July, 1924, I had the pleasure of being a member of the Sierra Club outing party, which had its main annual hike in Glacier National Park in Montana, along the Canadian border. The party consisted of two hundred and ten regular members, about equally divided between men and women, with forty or fifty additional men in the commissary and pack-train. It required ninety-five horses for our luggage. A few of the regular party and all of the packers traveled horseback, so that there were more than one hundred and thirty horses in line each day we moved camp. Our first stop was at "Camp Sierra" (named in honor of our club), five miles up from Belton, on the southwest side of Lake McDonald.

Our first move from Lake McDonald was seventeen miles to Logging Creek, where we camped one night. Our next stop was at Bowman Lake, a distance of fifteen miles. We were at this lake for four days. There is an automobile road from Belton to this lake, so our dunnage was hauled by auto-trucks to this point, where the pack-train joined us.

Our stay at Bowman Lake was a joy to the fishermen and fisherwomen of the party, the limit being caught by many of them. We had rain every day, and my tent was no longer embarrassing, but a solid comfort, for it turned the water. Some of my neighbors had more expensive tents, with floors; but the floors seemed to be all that was waterproof about them. The water poured through the sides, but the floor held tight, and the water, coming in freely, was imprisoned inside with the occupant. After this rainy spell, I had greater respect for my outfit, as it kept me both warm and dry.

Our next hike was to Browns Pass, about fifteen miles, with a climb of over three thousand feet. Some of the party went up the day

* Copied from an article published in the *Californian Pythian Star*, November, 1924.

previous and enjoyed—or suffered, according to one's viewpoint—a genuine snow-storm. We camped there one night, and it was a cold, windy, weird night. I pitched my tent out in an open place. The packers herded their horses near by, and between the whistling of the wind through the small pines, the yelling of the cowboys, and the neighing of those wild-west horses, with a stampede in my direction possible at any time, I confess it was interesting; but it was too cold to crawl out of my warm sleeping-bag, so there I stayed until 4:30, when we were all routed out for another hike to Waterton Lake.

We had a fine camp on the shore of this lake, and stopped over a day at this point to visit Canada. There were several small gasoline-propelled boats, so that we all had an opportunity to visit Waterton Lake Park, Alberta, Canada. The Canadian end of the lake is flat country, while at our end we have beautiful mountains.

From Waterton we hiked to Indian Pass. Our climb was about thirty-three hundred feet, in a distance of three miles. We hiked five miles before we started up, and about half-way up we came to a little blue lake, fitted in between the mountains so tightly that we had a choice of wading or scaling the almost perpendicular side of the mountain.

After passing the lake, we had a long, steep climb up a zigzag trail, which crossed and recrossed a snow-field. I enjoyed several snowballs on the way up. It was a delightful trip, first a long swing to the right, then another to the left, each bringing us a little nearer to the crest of the pass. To me the thrill of anticipation of what I shall see when I reach the top takes away all thought of fatigue. There was no disappointment here, as the reward was far greater than the effort made by the perspiring climbers; for as we stood in Indian Pass we realized that we were in the center of the park. In all directions were snow-capped peaks; here our horizon stretched out for miles, and our world became bigger and better.

About a mile down on the east side of the pass, we camped for the night. Shortly after making camp, I went for a walk toward one of the peaks. Here I ran into a miniature Garden of Eden, covering a small area which seemed to contain at least one representative of all the flowers in the park. I had seen flowers along all the trails, but nothing so exquisite, so beautifully fine, as these; they were so fresh and delicate they appeared as if they might have grown, blossomed, and bloomed within the hour. It was such a rare picture, so

INDIAN PASS, GLACIER NATIONAL PARK
Photograph by Walter L. Huber

INDIAN PASS, GLACIER NATIONAL PARK
Photograph by Walter L. Huber

GLENNS LAKE AND CROSSLEY LAKE, GLACIER NATIONAL PARK
Photograph by T. J. Heilman

fresh, that I looked about for the cause. I was soon rewarded with an explanation. Not far above there was a large snow-field which never entirely melts; but each day, when the sun is hot, there is a free flow of water, and a portion—just the right portion—irrigates these flowers.

Back in camp, we had a good dinner and a big camp-fire, as usual. From this camp we had our best exhibition of goat-climbing. This stunt was put on by the real, sure-enough four-legged species. Shortly after dinner one of the ladies of the party spied through her field-glasses a mamma goat, with her young son (am guessing at the son part of it), taking an evening stroll along the mountain-peak. They seemed to be doing stunts for our special benefit, and it would have turned one of our movie actors green with envy to see how easily they walked right up the precipitous side of the mountain and poised on the narrowest of the ledges. We also had a good view of mountain-sheep from this point. There I saw the only elk (two) while in this camp.

Mr. Vernon Bailey, Chief Field Naturalist, Division of Biological Investigations, Department of Agriculture, Washington, D. C., came out to Montana to make the trip with us. His duty was to tell us all about the animals and animal life in the park, and he certainly had a busy time of it. Not only was he called upon for information about all animals and birds in Glacier, or any other park or country, but he was called on to name all the trees, flowers, grasses, weeds, bugs, bees, rocks, and glaciers—and he did it! I have never seen a man better fitted in every way for his work; many of us marveled at his patience and endurance. His camp-fire lectures were instructive and interesting, and I derived a great deal of information from them. He was more interesting to me, however, as an individual than as a scientist. I doubt if ever any other man sent out by the Government so completely filled his mission, where the human equation entered so largely into the work, as did Mr. Bailey. He was liked and held in the highest esteem by every member of the party, and when our train pulled out, leaving him on the platform at Belton, we all felt that we were leaving a warm personal friend behind.

From our Indian Pass camp we went on to Crossley Lake, lower end. A large number of the party left the main trail for a side trip to Sue Lake, Chaney Glacier, and Pyramid Peak. Near Sue Lake the first and only accident of the entire trip occurred. One of the

GLENNS LAKE AND CROSSLEY LAKE, GLACIER NATIONAL PARK
Photograph by T. J. Hellman

party slipped on a snow-field with such force that he fractured a leg. Fortunately, one of our Los Angeles surgeons was within reach; he cut splints from the pines, set the limb, and fixed his patient up so that he could ride a horse to camp. From there he was taken out to the railroad, a friend of his abandoning the trip right in the most interesting part to take him home. They left camp on Sunday morning, and I do not believe I exaggerate when I say that the entire crowd was out to offer any possible assistance and wish him a successful journey home. It was a splendid display of interested friendliness.

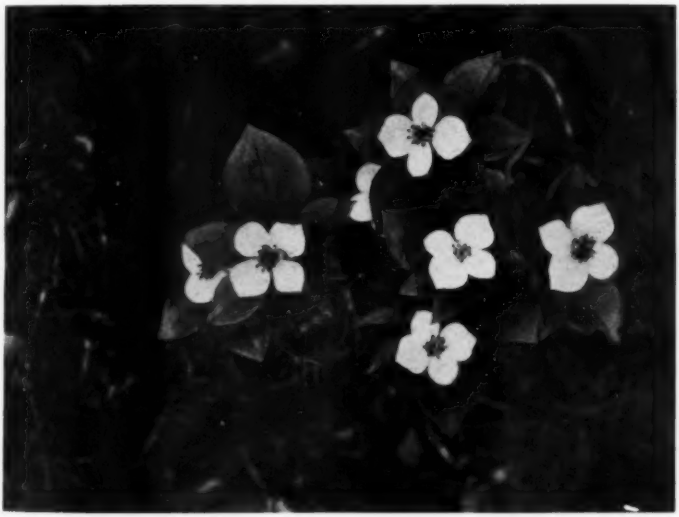
We spent the day at Crossley Lake, and then hiked for Red Gap Pass, our trail following a river, first on one side, then on the other, so that we forded five times before we started our more than three-thousand-foot climb. Lots of fun wading in above one's knees in water ice-cold! Some waded in boots, while others took off shoes and stockings. Some of the girls got a ride with the packers, if one happened along at the right time. One heroic packer thought his horse could carry four at a time—and he did, to the middle of the stream, where the ducking was very successful!

Red Gap is properly named, the peaks on either side of the pass being red. It was the windiest pass we struck. The altitude is seventy-six hundred feet, and the view in all directions is magnificent. We camped about a mile and a half down on the east side, over the divide, and next day reached Lake McDermott. Our camp was located on the opposite side of the lake from Many Glacier Hotel.

Many Glacier Hotel is one of the largest connected with the park, and, as indicated by the name, quite a number of glaciers can be seen from this point. From here the eastside tourists visit Iceberg Lake, also a marvel of beauty. The popular glacier trip from this hotel is to Grinnell. Facing the hotel is Mount Wilbur, a majestic, friendly sentinel, welcoming the visitor to this home of nature, where peace and beauty reign supreme.

From Many Glacier Hotel we hiked to Granite Park and enjoyed a delightful climb up and over Swift Current Pass. A large number climbed Swift Current Peak, whence a panoramic view of nearly all the park was enjoyed. It was a vast and glorious picture, never to be forgotten. From there we went down into Granite Park —and again words fail. This is a natural park, laid out in long

HAREBELLS (*Campanula rotundifolia*)



BUNCHBERRY (*Cornus canadensis*)
Glacier National Park
Photographs by Inez Mexia

YOUNG ALLEN HUMMING-BIRD
Photograph by Inez Mexia

SOUTHERN WHITE-TAILED PTARMIGAN
(*Lagopus leucurus altipetens*)
Photograph by Fred Herz

graceful avenues covered with grass and many colored flowers, bordered by the dark, rich green of the pines and firs, fenced on one side by the garden-wall, builded of limestone and shale, in which all the colors of the rainbow scintillate and sparkle in myriad hues that fill the beholder with enraptured delight.

On the opposite side is a range of mountains of surpassing beauty. Heavens Peak, an appropriate name, is the most prominent. There are higher mountains, there are more magnificent mountains, but for pure loveliness, pure delicacy of outline, I doubt if there is a more beautiful mountain in the entire world. Its face is made up of soft, warm, inviting colors; here and there one may trace a rare mosaic of the different-shaded strata. On top there are many graceful lines formed of the various tinted rocks, shaping themselves into squares, circles, and diamonds, with all the centers filled with pure white snow.

We camped in the midst of all this beauty, hiking out along the garden-wall the following morning. Of all our hikes, there was none more enjoyable than this. We were welcomed by many of the regular inhabitants along the trail. One friendly deer followed us for several miles; the marmots also were familiar, and we got close up on several mountain-sheep. We camped that night on the shore of St. Mary's Lake. Many think this lake, and that magnificent mountain, "Going-to-the-Sun," the finest part of the park; but it would be a rash thing for anyone to attempt to name the outstanding point of beauty.

From St. Mary's Lake to Gunsight Pass Lake, we had an all-night rain, followed by a snow-storm about 7 A.M., Monday, August 4. Owing to the fog, we did not see much of Gunsight Pass. This was a keen disappointment, for this pass is noted for its wildness and gorgeous colorings; but we saw enough through the rifts in the fog to verify all this and more. Like many, many other points in this wild, beautiful domain, one might use all the adjectives and still fail to tell half the story.

This was our last real hike of the trip. We passed the Sperry Chalets on the way, and camped at Lewis camp-grounds at the upper end of Lake McDonald. Mr. Lewis, one of the pioneers of the park, has a fine hotel and grounds. He extended the party every courtesy, and we all came away with the feeling that we would like to return. The next morning saw our camp organization broken up, some going

SOUTHERN WHITE-TAILED PTARMIGAN
(*Lagopus leucurus altipetens*)
Photograph by Fred Herz

YOUNG ALLEN HUMMING-BIRD
Photograph by Inez Mesia

to Belton by launch, others by auto-bus, and some of us hiked the twelve miles over the auto-road. There is not much inspiration to be gotten out of hiking along a public highway, but it was better exercise than riding.

Quite a number of our party from the Atlantic Coast, with others from the different points in the West and Middle West, returned East; but the larger party from sunny California boarded the special train at 3 P.M., bidding good-by to Glacier National Park after three weeks of genuine outdoor life—three weeks of renewing and rebuilding vigorous, healthy physical bodies; three weeks of ideal life, in ideal surroundings, in which the soul had an opportunity to grow and expand; three weeks of looking up to nobler things, higher aspirations, thereby gaining a broader and grander viewpoint of life, and returning to our homes better men and women for having made this splendid trip!

GLACIER HOARY MARMOT (*Marmota caligata nivaria*)
Glacier National Park
Photographs by William E. Colby

VIEW ACROSS THE STIKINE FROM OUR CAMP NEAR FLOOD GLACIER

The surrounding mountains bear, on their middle heights, an almost continuous belt of hanging glaciers

Photograph by Joseph Dixon

A VISIT TO THE STIKINE GLACIERS

By Harry S. Swarth

VIEW ACROSS THE STIKINE FROM OUR CAMP NEAR FLOOD GLACIER
The surrounding mountains bear, on their middle heights, an almost continuous belt of hanging glaciers
Photograph by Joseph Dixon

WHEN Mr. Joseph Dixon and I visited the Stikine River in the summer of 1919, carrying on field work for the Museum of Vertebrate Zoology of the University of California, we had neither of us read John Muir's "Travels in Alaska." This was unfortunate, for we thereby missed a great deal. Unknowingly, we, at several places, trod very nearly in Muir's footsteps, and this at points that are visited so seldom by anyone that there would have been much pleasure and interest attached to a comparison of circumstances as he found them in the valley of the Stikine, and as we did so many years later. We spent the summer (May 23 to September 8) in a leisurely descent of the river, beginning at Telegraph Creek, our moves being made on the Barrington Transportation Company's power-boat, which plies up and down the Stikine for some five months of the year. We camped at six different points, remaining from ten days to several weeks at each place.

Two weeks were spent at the abandoned town of Glenora. In the work we were doing, collecting birds and mammals for a study of the fauna of the Stikine Valley, we found abundant occupation in the lowlands, so much so that we never made the ascent of the near-by Glenora Mountain, climbed by John Muir under such thrilling circumstances. We fully intended to do so, but put it off until the end of our stay; then the river boat arrived some days sooner than expected and we had to leave, as to wait for the next trip would have curtailed our stay farther down-stream. An ascent of Glenora Mountain has since been described by E. Mallinckrodt, Jr.* Our own experiences in the old town and in the woods at the base of the mountain were most interesting to us; but they have no bearing on Muir's narrative and need not be dwelt upon.

Leaving Glenora we went down-stream some thirty-five miles to Grand Rapids, remained there for three weeks, and then moved on to Flood Glacier. Here we camped at what is locally known as "the Barley Cache." Years before, as we were told, presumably during

*Sierra Club Bulletin, vol. xi, no 2, January, 1921, pp. 154-160.

the gold rush of 1898, a man who was hauling a shipment of barley up the frozen river had reached this point, when the ice began to go, and he cached his grain on this knoll until it could be taken up by boat. Satisfactory camp-sites are extremely few along this part of the river, and this little knoll, rising just far enough to be safely above high water, is often used as a stopping-place. We found here a few square yards of level ground sufficiently free of brush to give room for our tents, while an added advantage lay in the fact that the banks rise abruptly from deep water, so that the river boat could come alongside to put off and take on our outfit with a minimum of trouble.

Here we were hemmed in by dense forest, a dark jungle so closely surrounding the little shelf on which we camped as to give us a feeling of being crowded off into the stream. At this time, too, the river was rising, and inch by inch the water crept up nearer the level of our tent. It would have been a consolation then to have been aware, as we learned later, that the Barley Cache was never known to be submerged; as it was, we watched the river closely for some days. The low ground behind our camp was covered, so that we waded some distance ankle-deep to reach the higher ground beyond.

Muir speaks of his visit to "Dirt Glacier,"* and on a first reading I assumed that he was referring to what on modern maps is called the Mud Glacier.† That his "Dirt Glacier," however, is what is now called Flood Glacier, is evident from his description and from certain incidents. Thus, leaving this place, he says that "the swift current swept us down to Buck Station, some thirty-five miles distant, by eight o'clock. Here I remained to study the 'Big Stickeen Glacier' . . . " This is just the distance between Flood Glacier and the place he designates. Mud Glacier is about midway between. Flood Glacier, as seen from the river, has a dirty face, though not so much so as the smaller Mud Glacier.

Muir and his Indian companions camped "on the south or lower side of the delta, below all the draining streams," which, in general, designates the situation of the Barley Cache; but whether or not he was at this exact place cannot be said. River-bottoms of this nature change so with the years that very probably his camp-site could not now be recognized under any circumstances. Muir's description of

**Travels in Alaska*, chapter viii.

†The map we used was U. S. Coast and Geodetic Survey, "Frederick Sound and Sumner Strait, s. e. Alaska, 1917."

RAPIDS JUST ABOVE GLENORA

These rapids formerly marked the head of navigation on the Stikine, but are now ascended by boats with powerful gasoline engines

Photograph by Joseph Dixon

RAPIDS JUST ABOVE GLENORA

These rapids formerly marked the head of navigation on the Stikine, but are now ascended by boats with powerful gasoline engines

Photograph by Joseph Dixon

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EXTREME SOUTHERN END OF THE FACE OF THE GREAT GLACIER
As viewed from a tree-top near our camp
Photograph by Joseph Dixon

the forest between the river and the terminal moraine of the glacier fits conditions as we found them exactly, but it applies equally well to many miles of bottom-land along the lower Stikine. He says that "progress was difficult and slow on account of snow-crinkled and interlaced thickets of alder and willow, reinforced with fallen trees and thorny devil's-club (*Echinopanax horridum*), making a jungle all but impenetrable."

In our own case, the first two days were spent in laborious exploration of the surrounding woods. We knew that there was some open ground beyond, toward the glacier, but for a time we despaired of finding it. A trail beyond the camp led to an old cabin, built by one who was a hopeless misanthrope or else mentally incompetent. We were now in the "wet belt," and knew that heavy rains might come at any time, as indeed they did a little later; but it never occurred to us to take refuge in this cabin in preference to our tent. Closely hemmed in by dense woods, built with just one small window, and on low ground so that the river occasionally flooded it to a depth of six or eight inches, it was a marvel to us why it should ever have been built. Beyond the cabin we found a series of "blazes" leading off through the woods, marks that had been made years before and presumably indicating the former location of trap-lines. We followed these trails hopefully, re-marking the trees as we went, but a forenoon's travel led us but a few miles by devious paths, and never to any opening.

On the following day Dixon had better success, stumbling onto a narrow clearing, a lane that was so straight-ruled and so sharply defined that stepping into it from the bordering forest was like entering a long corridor from the closed rooms on either side. This led straight from the glacier nearly to the river, one of several such channels. These passageways are presumably results of the periodic overflows of the lake described by Muir as dammed by one arm of the glacier, the tremendous rush of waters that has given Flood Glacier its name. That these narrow lanes are convenient trails for moose, bear, and other mammals was shown by numerous tracks; small birds found here sunshine that was denied them in the dense surrounding forest, and flocks of juncos, chickadees, and others were encountered here far more abundantly than in the woods.

Lacking Muir's incentive, we made no efforts to ascend the glacier. His casual comments upon his eight-mile walk thereon would

EXTREME SOUTHERN END OF THE FACE OF THE GREAT GLACIER
As viewed from a tree-top near our camp
Photograph by Joseph Dixon

lead the uninformed to believe that no more effort was required than in traversing a paved highway; but there are few men who can travel over rough country as Muir could, and although the top (which we did not reach) may afford relatively easy going, there are still so many chances for disaster that exploration of that frozen highway should certainly not be attempted without full appreciation of the difficulties involved and of the real danger attendant upon such an enterprise.

After two weeks in this camp, with our fair share of gray sky and dripping foliage, it was a welcome sound to hear one morning the distant throbbing of the "Hazel B, III" forging up-stream. Now strongly, from some open channel, and now faintly, as the river curved again, the insistent sputter of the gasoline engine was in our ears for some hours before the craft hove in sight. It is a long, wearisome struggle the boat has, breasting the gray, surging current of the Stikine in full flood, so we had warning ahead long before she arrived. A brief stop sufficed to pass our mail ashore together with needed supplies, all in accordance with the friendly spirit we found everywhere in our travels on this river, with the warning to be ready two days later for departure farther down-stream.

The appointed time found us breaking camp in a drizzling rain. We knew we need expect no advance notice of the boat's arrival this time, for the whole trip down-stream from Telegraph Creek, the head of navigation, is a matter of hours, as compared with the two days or more required going up, and the throb of the engine was in fact followed quickly by the boat's appearance around the nearest curve. At 7 P.M. we were on board and moving on to the Great Glacier, some forty miles down-stream, where we arrived at 10 P.M.

Just before reaching our destination the cook called me into the galley for a cup of coffee, and while I was so engaged the boat swung around, with prow up-stream, to make the landing. The natural results of this maneuver, so far as I was concerned when I emerged, was to shift the Great Glacier to the opposite side of the river and to make the stream flow in the wrong direction. They never did get straightened out.

In the dim twilight we got our tents up and everything under cover, so that when we did get to bed we could regard the lowering clouds overhead with some equanimity. It was distinctly a relief, though, to realize in the morning the change that had come when we

slept—a sharp tang of frost in the air, a clear blue sky overhead, and the sun's rays sparkling on the hanging glacier across the river. We never found ourselves equal to John Muir's whole-souled appreciation of the pouring rains of this region, or able to take this feature, as he did, as an enjoyable part of an admirable whole!

Our camp was on the river's brink, below the southern end of the glacier, and it must have been somewhere near here that Muir attacked the glacier. He stayed with "Mr. Choquette, the keeper of the station," on the far side of the river. The map we were using has "site of Choquette's" indicated at a point nearly opposite where we were camped; but if Choquette has left other traces of his residence there, they did not come to our notice.

A small stream flowing over a gravelly bed and emptying into the Stikine a few hundred yards below our camp afforded an easy avenue of approach to the glacier, some two miles distant, and we followed it to its source in one of the string of lakelets that Muir describes. These ponds and lakes, extending before the face of the glacier, are, in this region of dense forests, unique in their setting, the surrounding gravelly hills being absolutely barren of any vegetable growth. In their raw, harsh aspect, these low hills and ridges are suggestive of the desolation following the operations of a gold-dredger or some similar human activity, rather than the workings of nature, which generally covers scars pretty effectually as fast as they are inflicted. Slight difficulty was encountered in crossing one of the lakes to the face of the glacier beyond—none, in fact, greater than the discomfort of wading waist-deep in water bitterly cold almost beyond belief. The bottom was mud, hard so that one did not sink at all, but incredibly slippery, and thus causing agonized apprehension of total immersion at every step. We felt our way over cautiously, testing the depth with long poles, and sat in the sunshine a while endeavoring to restore arrested circulation. A very brief reconnaissance confirmed our gloomy conviction that there was no way back other than that by which we came.

In the days following we made several trips to the face of the glacier and clambered over some of the lower slopes. The weather was warm, ice was dropping constantly, and we made no attempt to reach the top, as Muir did. We remained here from August 8 to 16, when the river boat again called for us, and moved us down-stream, to the vicinity of Wrangell, where the season's work ended.

PLACE NAMES OF THE HIGH SIERRA

COMPILED BY FRANCIS P. FARQUHAR

PART III

THE alphabetical list of place names of the High Sierra begun in the SIERRA CLUB BULLETIN of 1923 (Volume XI, Number 4) and continued through the letter Q in the 1924 issue (Volume XII, Number 1) is concluded in this issue. Of course, there is no end to a compilation of this character, for there are many times more names on the maps and in common use than have been chosen for this publication. Some of the names omitted are commonplace or without significance, others are of uncertain origin or meaning, and still others are omitted merely because the compiler has not yet been able to verify the supposed origins. There is therefore abundant material in sight for supplementary publication from time to time.

In the BULLETIN for 1924 the compiler invited corrections and additions. Several very helpful letters have been received and information has been furnished regarding a number of the names listed as being especially desired. A particularly interesting letter from W. H. Spaulding, of San Francisco, throws light on the name of Jack Main Cañon and other places in the northern Tuolumne:

"Some years ago I was discussing a trip I had made through Jack Main Canyon with Mr. C. H. Burt. Mr. Burt was then an old gentleman, engaged in mining in Mariposa County. He told me that as a boy he had often herded sheep through Jack Main Canyon and volunteered the information that the canyon was named after an old sheep-herder who ranged sheep in that region whose name was Jack Means. Mr. Burt said that the name of the canyon as it appeared on the maps was incorrect; that all the early sheep and cattle men in that region called the canyon 'Jack Means Canyon,' and that the present name of the canyon was a corruption of that name.

"In 1918 I spent three weeks in and around Twin Lakes, west of Bridgeport. At that time I saw a great deal of an old gentleman, Mr. Andrew Smith, who was formerly Superintendent of Mines at Bodie. Mr. Smith accompanied our party to Barney Lake. He told us that Barney Lake and also Peeler Lake, high on the range southwest of Barney Lake, were both named after an old resident of Bridgeport, Barney Peeler."

A recent visit with Colonel Robert B. Marshall, formerly Chief Geographer of the United States Geological Survey, produced a

MEMBERS OF THE STAFF OF THE CALIFORNIA STATE GEOLOGICAL SURVEY, ABOUT 1863

Left to right: Chester Averill, General Assistant; William M. Gabb, Palæontologist; William Ashburner, Geologist; Josiah Dwight Whitney, State Geologist; Charles F. Hoffmann, Topographer; Clarence King, Assistant Geologist; William H. Brewer, Principal Assistant

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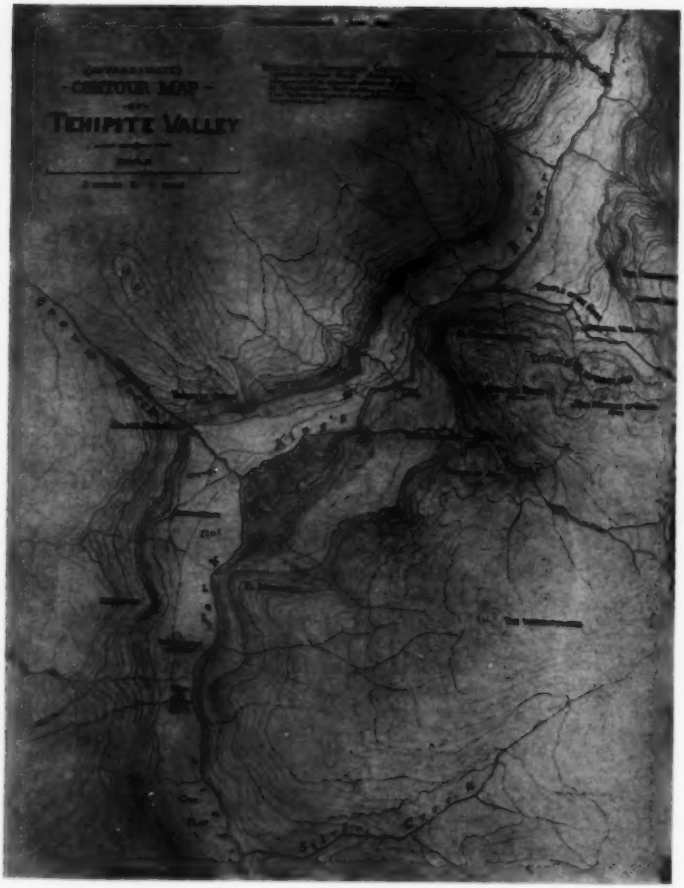


MAP OF TEHIPITE VALLEY
Drawn by Theodore S. Solomons (1897), assisted by L. A. Winchell, who gave many of the names

great deal of interesting information. Colonel Marshall was in charge of many of the field parties during the survey of the Sierra and supervised practically all of the map work for the entire region, naming many of the points himself, so that his information is of unusual value.

A letter from L. A. Winchell, of Clovis, containing a number of interesting additions and several corrections, has been received, but too late for including the information in this issue.

PLACE NAMES OF THE HIGH SIERRA
(CONTINUED)

RAE LAKE [*Mount Whitney*]

Named by R. B. Marshall, U.S.G.S., in 1906 for Mrs. William E. (Rachel Vrooman) Colby. (R. B. Marshall.)

RAFFERTY CREEK, PEAK (11,178) [*Mount Lyell*]

Captain Ogden Rafferty (1860-1922), Medical Corps, U. S. Army; A. B., Princeton, 1882; M. D., Columbia University, 1885; army surgeon, 1888; captain, 1893; major, 1901; lieutenant-colonel (retired), 1910.

Name given by Lieutenant McClure in 1895, when he was accompanied by Captain Rafferty on a patrol of Yosemite National Park. (N. F. McClure.)

RAMBAUD PEAK (11,023) [*Mount Goddard*]

Pete Rambaud, Basque sheepman, who brought the first sheep into Middle Fork of Kings River from Inyo side, via Bishop Pass, in 1877. (L. A. Winchell.)

RECESS PEAK (12,841) [*Mount Goddard*]

Named because of proximity to the First Recess of Mono Creek. Theodore S. Solomons discovered and named the First, Second, Third, and Fourth Recesses in 1894. (T. S. Solomons.)

RED-AND-WHITE MOUNTAIN (12,840) [*Mount Goddard*]

Named by Theodore S. Solomons in 1894. (T. S. Solomons; see illustration in S.C.B., 1899, II:5, plate XXIX, opp. p. 252.)

First ascent by Lincoln Hutchinson, James S. Hutchinson, Charles A. Noble, July 18, 1902. "The name has gained a place in the maps, and it is peculiarly descriptive of the great peak of red slate fantastically streaked with seams of white granite." (S.C.B., 1903, IV:3, pp. 199-202.)

"Mr. Gardner visited the crimson-colored group noticed above, and which was about five miles north of the camp. The rocks were found to be of metamorphic slate, which continues about eight miles to the north, and is there lost under the granite. Enclosed in the slate, and having the same dip and strike, is a vein of white quartz rock sixty to seventy feet wide." (Whitney: *Yosemite Guide Book*, 1870, p. 134.) This description appears to refer to Red-and-White Mountain specifically, although Red Slate Mountain was evidently included in the group named by the Whitney Survey "Red Slate Peaks." There

is no assertion and no evidence that Gardner climbed to the summit of any of the peaks.

RED SLATE MOUNTAIN (13,152) [*Mount Morrison*]

Name appears on Hoffmann map of 1873 (Whitney Survey), but not clear whether applicable to this peak or to Red-and-White Mountain. (See RED-AND-WHITE MOUNTAIN.) Unlikely that Gardner reached the summit of this peak, as it was too far from Whitney Survey camp on Mono Creek.

First ascent by Joseph N. Le Conte and Clarence L. Cory, June 22, 1898. (S.C.B., 1899, II:5, pp. 251-253.)

REDS MEADOW [*Mount Lyell*]

"Red" Sotcher, a stockman, so called from his red beard.

REFLECTION LAKE [*Mount Whitney*]

Named by Howard Longley and party, August, 1894. (S.C.B., 1895, I:6, p. 192.)

REGULATION PEAK (10,500) [*Mount Lyell*]

Lieutenant Benson and a trumpeter named McBride were placing copies of the park regulations on trees throughout Yosemite National Park in 1895. Climbing to reconnoiter from a peak between Smedberg Lake and Rodgers Lake, McBride tacked a copy of the regulations on a tree and suggested the name Regulation Peak, and it so appears on Benson's map of 1897. On McClure's map of March, 1896, the name is placed in an ambiguous position, and later in entering the name on the U.S.G.S. quadrangle it became affixed to the wrong peak. To the true Regulation Peak, thus left vacant, the name of Volunteer Peak was assigned. (H. C. Benson.)

REINSTEIN, MOUNT (12,595) [*Mount Goddard*]

Named by R. B. Marshall, U.S.G.S., for Jacob Bert Reinstein, a regent of the University of California from 1897 to 1912. (R. B. Marshall.)

REVERSED CREEK [*Mount Lyell*]

"One unfamiliar with the geology of the basin will be surprised to find that June Lake . . . instead of discharging its drainage northward into Mono Valley, as would seem most natural, drains southward into the hills and is tributary to Rush Creek. The ancient drainage has been reversed by the deposition of morainal debris; we have therefore called the stream draining June and Gull lakes, Reversed Creek. The drainage before the site of June Lake was occupied by a glacier must have been northward." (Israel C. Russell: *Quarternary History of Mono Valley*, in *Eighth Annual Report of the U.S.G.S.*, for 1886-87, p. 343.)

RIBBON FALLS [*Yosemite*]

"The Indians call this Lung-oo-too-koo-yah, or the graceful and slender one; while a lady, whose name shall be nameless, once christened it 'Virgin's Tears'." (Hutchings: *In the Heart of the Sierras*, 1886, p. 398.) "Lungyo-tuckoya. The Virgin's Tears Creek, meaning Pigeon Creek." (Whitney: *Yosemite Guide Book*, 1870, p. 16.)

"Mr. Hutchings, who, were it not for his exuberant imagination, might have

learned better, gives the signification of 'Lung-oo-to-koo-ya' as 'Long and Slender,' and applies it to what he calls the Ribbon Fall. His name is better than his interpretation." (Bunnell: *Discovery of the Yosemite,* 1880, p. 215.)

The total drop of the falls when full is 1612 feet, probably the longest in the world. (Figures from U.S.G.S. *Map of Yosemite Valley,* 1907, 1922, 1:24,000.)

RITTER, MOUNT (13,156) [*Mount Lyell*]

"Ritter is the name of the great German geographer [Karl Ritter, 1779-1859], the founder of the science of modern comparative geography." (Whitney: *Yosemite Guide Book,* 1870, p. 101.)

Clarence King, approaching from the southwest, attempted to climb the mountain (probably in 1866), but did not quite reach the summit. (Whitney Survey: *Yosemite Book,* 1868, p. 98.)

First ascent by John Muir, October, 1872. (Muir: *The Mountains of California,* 1894, pp. 52-73; first published in *Scribner's Monthly,* July, 1880.) For subsequent notable ascents see: Russell: *Existing Glaciers of the Sierra Nevada,* in *Fifth Annual Report of the U.S.G.S.,* for 1883-1884, p. 315; and S.C.B., 1922, XI:3, p. 248; S.C.B., 1893, I:1, p. 10; S.C.B., 1905, V:3, pp. 186-193.

RIXFORD, MOUNT (12,856) [*Mount Whitney*]

"From several points on top of the Gardner Divide compass readings of the salient points in the basin were made and sketch maps were drawn. One of these points, the highest between the Main Crest and Mt. Gardner, was climbed by President [David Starr] Jordan, Professor and Mrs. Cubberly and the writer (and later by other members of the same party), and was found to be a peak worthy of christening. Records in a cairn on top showed that it had been climbed previously by Dr. Emmet Rixford of San Francisco, with two companions, and by Professor [Bolton Coit] Brown. We gave the name Mt. Rixford to this point." (Vernon L. Kellogg: *A Stanford Party in the Kings River Canyon,* in *Sunset Magazine,* November, 1899, p. 18. See, also, S.C.B., 1900, III:2, pp. 149, 169.)

Emmet Rixford; M. D., Cooper Medical College, San Francisco, 1891; B. S., University of California, 1887; Professor of Surgery, Stanford University, since 1909.

ROCK ISLAND LAKE [*Bridgeport*]

"I named the stream Rock Creek, and the lake Rock Island Lake, from a large granite island that was visible near the northern end." (N. F. McClure, in S.C.B., 1895, I:5, p. 178.)

RODGERS PEAK (13,036), LAKE [*Mount Lyell*]

Captain Alexander Rodgers, 4th Cavalry, U. S. Army, acting superintendent of Yosemite National Park, 1895 and 1897; colonel, 1906; retired, 1911.

The peak was named by Lieutenant McClure in 1895 and appears on his map of March, 1896. In the same year Lieutenant Benson named Rodgers Lake and gave the same name to the peak south of it. Owing to duplication of name, the U.S.G.S. dropped it from peak near Rodgers Lake, substituting

name Regulation Peak, which was transferred from original location. (N. F. McClure, H. C. Benson.)

ROSE LAKE [*Mount Goddard*]

Named by R. B. Marshall, U.S.G.S., for Rosa Hooper, daughter of Major William Burchell Hooper, of San Francisco, and sister of Selden S. Hooper, an assistant of the U.S.G.S. Miss Hooper is now a miniature painter in New York. (R. B. Marshall, Mrs. Mary Hooper Perry.)

ROWELL MEADOW [*Tehipite*]

Dr. Chester Rowell, of Fresno. Chester H. Rowell says his uncles Chester and George used to run sheep there years ago and had a sort of "shotgun" title to the meadow.

ROYAL ARCHES [*Yosemite*]

"The name given to the rocks now known as 'The Royal Arches' is Scho-ko-ya when alluding to the fall, and means 'Basket Fall,' as coming from To-ko-ya, and when referring to the rock itself it was called Scho-ko-ni, meaning the movable shade to a cradle, which, when in position, formed an arched shade over the infant's head. The name of 'The Royal Arch' was given to it by a comrade who was a member of the Masonic Fraternity, and it has since been called 'The Royal Arches'." (Bunnell: *Discovery of the Yosemite*, 1880, p. 212.)

RUSKIN, MOUNT (13,000) [*Mount Whitney*]

Named by Professor Bolton Coit Brown in 1895 for John Ruskin (1819-1900), English writer and critic. (J. N. Le Conte.)

RUSSELL, MOUNT (14,190) [*Mount Whitney*]

Israel Cook Russell (1852-1906); M.S., C.E., LL.D. (New York University); assistant geologist, Wheeler Survey, 1878; geologist, U.S.G.S.; professor of geology, University of Michigan, 1892-1906; geological researches in Mono Lake and Mount Lyell regions, 1881-1883. Published: *Existing Glaciers of the United States*, in *Fifth Annual Report of the U.S.G.S.*, for 1883-1884, and *Quarternary History of Mono Valley, California*, in *Eighth Annual Report of the U.S.G.S.*, for 1886-1887. (R. B. Marshall.)

RUTHERFORD LAKE [*Mount Lyell*]

Lieutenant Samuel McPherson Rutherford, 4th Cavalry, U. S. Army, on duty in Yosemite National Park, 1896; colonel of infantry, N. A., 1917-1919; colonel of cavalry, 1920.

SABRINA, LAKE [*Mount Goddard*]

Named for Mrs. Sabrina Hobbs, whose husband, C. M. Hobbs, was the first general manager of the Nevada California Power Company, which constructed a reservoir at this lake in 1907-1908. The name is erroneously spelled Sebrina on U.S.G.S. maps. (W. L. Huber.)

SADLER PEAK (10,562), LAKE [*Mount Lyell*]

Named by Lieutenant McClure in 1895 for a corporal in his detachment.

Erroneously spelled Sadlier on McClure's map of 1896 and in S.C.B., 1896, 1:8, p. 334. (N. F. McClure.)

SAN JOAQUIN RIVER

Probably named by Gabriel Moraga's expedition of 1805. (Chapman: *History of California*, 1921, p. 420; Sanchez: *Spanish and Indian Place Names of California*, 1922, p. 280.)

SARDINE LAKE [*Mount Lyell*]

"It bears the inscrutable designation of Sardine Lake. I hailed Bodie with an inquiry as to the reason for the name, and received his illuminating reply in one word, 'Canned.' I learned later that years ago an ill-fated mule bearing a cargo of the delicacy consigned to a merchant in some mining-camp of the Walker River region had fallen off the trail, and after a series of spectacular revolutions had vanished in the icy waters." (Chase: *Yosemite Trails*, 1911, p. 299.)

SAURIAN CREST (11,065) [*Dardanelles*]

Named by William E. Colby in 1911, on account of resemblance to an ancient monster. (W. E. Colby.)

SAWTOOTH PEAK (12,340) [*Kaweah*]

W. B. Wallace, F. H. Wales, and J. W. A. Wright climbed Sawtooth in 1881, then known as Miner's Peak. This may have been the first ascent. (Elliott: *Guide to the Grand and Sublime Scenery of the Sierra Nevada*, 1883, p. 59.)

SCHOFIELD PEAK (9913) [*Dardanelles*]

Named by Major William W. Forsyth, acting superintendent of Yosemite National Park, 1909-1912, for Lieutenant-General John McAllister Schofield; Secretary of War, 1868-1869; Commander-in-chief of the U. S. Army, 1888-1895. (H. C. Benson.)

SCYLLA [*Mount Goddard*]

". . . This gorge lay directly south of us, and in an hour we had descended to its head, which we found was guarded by a nearby frozen lake, whose sheer ice-smoothed walls arose on either side, up and up, seemingly into the very sky, their crowns two sharp black peaks of most majestic form. A Scylla and a Charybdis they seemed to us, as we stood at the margin of the lake and wondered how we might pass the dangerous portal." (Solomons: *Mount Goddard and Its Vicinity*, in *Appalachia*, 1896, p. 55.)

SEAVEY PASS [*Dardanelles*]

Named by R. B. Marshall, U.S.G.S., for Clyde L. Seavey; member of the State Board of Control, 1911-1915, 1917-1921; State Civil Service Commission, 1921-1923; State Railroad Commission (President), since 1923. (R. B. Marshall.)

SEBRINA, LAKE (See SABRINA)

SELDEN PASS [*Mount Goddard*]

Named by R. B. Marshall, U.S.G.S., for Selden Stuart Hooper, of San Francisco, who was with the U.S.G.S. from 1891 to 1898. Erroneously spelled Seldon on maps. (R. B. Marshall.)

SENGER, MOUNT (12,253) [*Mount Goddard*]

Named in 1894 by Theodore S. Solomons for J. Henry Senger, professor of German, University of California, one of the founders of the Sierra Club. (T. S. Solomons; see S.C.B., 1917, X:2, pp. 136-139.)

SENTINEL DOME, ROCK [*Yosemite*]

"From its fancied likeness to a gigantic watch-tower, is called 'Sentinel Rock'." (Whitney Survey: *Geology*, 1865, p. 412.) "The present 'Sentinel' they [the mission Indian guides] called 'Loya,' a corruption of Olla (Oya), Spanish for an earthen water-pot. The mountain tribes use, instead, a long-pointed basket, shaped somewhat like that rock, which the basket is supposed to resemble." (Bunnell: *Discovery of the Yosemite*, 1880, p. 212. See, also, p. 66.) "The peak called by us the 'South Dome' has since been given the name of 'Sentinel Dome'." (Bunnell: *Discovery of the Yosemite*, 1880, p. 212.)

SEQUOIA NATIONAL PARK

SEQUOIA NATIONAL FOREST

Park established by act of Congress, September 25, 1890, and enlarged by act of October 1, 1890. Name given by Secretary of the Interior Noble upon suggestion of George W. Stewart. The primary purpose of the park was to preserve the Giant Forest and other groves of big trees, *Sequoia gigantea*. (*Bakersfield Morning Echo*, June 18, 1902.)

Forest established by executive order of President Roosevelt, July 2, 1908, from territory formerly part of the Sierra National Forest. By proclamation of President Taft, July 1, 1910, Kern National Forest was established from the southern portion of Sequoia National Forest, and a portion of Sierra National Forest was transferred to Sequoia National Forest. (*Official proclamations.*)

Name *sequoia* given to coast redwood (*Sequoia sempervirens*) by Stephen Endlicher in 1847, presumably as Latin form of Sequoya, or Sikwayi, the native name of George Gist (Guest, or Guess), a Cherokee half-breed, although Endlicher did not state the source of the name. Sequoya invented an alphabet and writing for Cherokee language; born in Tennessee about 1760, died in Tamaulipas, Mexico, 1843. Name *sequoia* first applied to big tree by J. Decaisne in 1854. (Jepson: *Silva of California*, 1910, pp. 127-128, 139; Hodge: *Handbook of American Indians*, 1912, part 2, pp. 510-511; Ellsworth: *The Giant Sequoia*, 1924, pp. 127-156.)

SEVEN GABLES (13,066) [*Mount Goddard*]

"The south wall of the gap we found to be the side of a peak, the eccentric shape of which is suggested in the name Seven Gables, which we hastened to fasten upon it. . . . We [Theodore S. Solomons and Leigh Bierce] climbed the Seven Gables on the afternoon of our arrival at the head of the valley—September 20th [1894]." (S.C.B., 1895, 1:6, p. 230. See, also, S.C.B., 1921, XI:2, pp. 205-206.)

SHARKTOOTH PEAK (11,630) [*Kaiser*]

Named by Theodore S. Solomons in 1892. (T. S. Solomons.)

SHEPHERD CREEK, PASS [*Mount Whitney*]

Presumably for the Shepherd family, of whom James Shepherd and John Shepherd are mentioned in Chalfant's *Story of Inyo*, 1922, p. 301. The pass was named from the creek.

SIERRA NATIONAL FOREST

Established by proclamation of President Harrison, February 14, 1893, as Sierra Forest Reserve, under authority of act of Congress of March 3, 1891. (S.C.B., 1896, I:7, pp. 257-259.) Under acts of June 4, 1897, and February 7, 1905, boundaries were enlarged by proclamation of President Roosevelt, July 25, 1905. Further additions made under name of Sierra National Forest by proclamation of President Roosevelt, April 20, 1908. Division by proclamation of President Roosevelt, July 2, 1908, by which the Sequoia, Inyo, Mono, and Stanislaus national forests were established, each receiving parts of Sierra National Forest, remaining portion continuing as Sierra National Forest. Proclamation of President Taft, July 1, 1910, transferred additional lands in watershed of South Fork of Kings River to Sequoia National Forest. (*Official proclamations.*)

SIERRA NEVADA

Spanish for "snowy range of mountains," literally "snowy saw-teeth"; used by Spanish explorers as freely as the corresponding "White Mountains" by English. In 1542 Juan Rodriguez Cabrillo applied the name to mountains south of San Francisco (Santa Cruz Mountains); on map by Ortelius, 1564, name appears near Cape Mendocino; later maps show it farther inland. In 1776 Francisco Garcés visited Tulare Valley and used name Sierra San Marcos for southern portion of the present Sierra Nevada, and on Pedro Font's map of 1777 the whole range is for the first time clearly shown under designation of Sierra Nevada. (Information and maps by courtesy of Henry R. Wagner; see Elliott Coues: *On the Trail of a Spanish Pioneer*, 1900, I, pp. 265-305.)

SILL, MOUNT (14,100, approximately) [*Mount Goddard*]

Edward Rowland Sill (1841-1887), poet, and professor of literature at University of California from 1874 to 1882. Named by Joseph N. Le Conte in 1896. (S.C.B., 1904, V:I, p. 3.)

First ascent by Joseph N. Le Conte, James K. Moffitt, James S. Hutchinson, Robert D. Pike, July 24, 1903. (S.C.B., 1904, V:I, pp. 13-14.)

SILLIMAN, MOUNT (11,188) [*Tehipite*]

Named by Brewer's party of the Whitney Survey, June, 1864, for Benjamin Silliman, professor of chemistry at Yale University, 1846-1849, 1854-1870, and one of the founders of the Yale (Sheffield) Scientific School. First ascent undoubtedly by members of the Survey, among whom were William H. Brewer, Clarence King, James T. Gardner, and Charles F. Hoffmann. (Whitney Survey: *Geology*, 1865, pp. 376-377.)

SILVER PASS, CREEK [*Mount Goddard*]

SILVER PEAK (11,883) [*Kaiser*]

Theodore S. Solomons named Silver Creek in 1892 on account of its silvery

appearance. He named the peak from the stream; the pass was named subsequently. (T. S. Solomons.)

SILVER SPRAY FALLS [*Tehipite*]

"The falls descend in three sections. The water of the [last] is separated into misty spray before reaching the bottom, and adds much to its beauty; hence its name, 'Silver Spray'." (Elliott: *Guide to the Grand and Sublime Scenery of the Sierra Nevada*, 1883, p. 15.)

SIMMONS PEAK (12,504) [*Mount Lyell*]

Named by R. B. Marshall, U.S.G.S., in 1909 for Dr. Samuel E. Simmons of Sacramento. (R. B. Marshall.)

SING PEAK (10,544) [*Mount Lyell*]

Tie Sing, Chinese cook for the United States Geological Survey from 1888 to 1918; born in Virginia City, Nevada, but unable to prove birthplace on account of destruction of records by fire, and thus denied the rights of citizenship; he was nevertheless regarded by those who knew him as a fine American; killed by an accident while in the field with the Survey in 1918. The peak was named by R. B. Marshall, U.S.G.S., in 1899. (R. B. Marshall.)

SMEDBERG LAKE [*Bridgeport*]

William Renwick Smedberg, Jr., 2nd lieutenant, 4th Cavalry, U.S.A., on duty in Yosemite National Park in 1895; colonel since 1920; brigadier-general in 1918. Named by Lieutenant Benson in 1895. (H. C. Benson.)

SMITH PEAK (7835), **MEADOW** [*Yosemite*]

"Hetch-Hetchy is claimed by a sheep-owner, named Smith, who drives stock into it every summer, by a trail which was built by Joseph Screech. It is often called Smith's Valley." (Muir: *Hetch Hetchy Valley*, in *Overland Monthly*, July, 1873, pp. 49-50.)

SOTCHER LAKE [*Mount Lyell*]

"Red" Sotcher, a stockman.

SOUTH AMERICA, LAKE [*Mount Whitney*]

Named in 1896 by Bolton Coit Brown on account of the resemblance in outline to the map of the continent. (See map in S.C.B., 1897, II:1, opposite p. 22.)

SOUTH GUARD (12,964) [*Mount Whitney*]

Named by David Starr Jordan in 1899. (J. N. Le Conte; see map in S.C.B., 1900, III:1, opposite p. 109.)

First ascent by Walter Leroy Huber, James Rennie, Florence C. Burrell, Inezetta Holt, July 26, 1916. (S.C.B., 1917, X:2, p. 230.)

SPENCER, MOUNT (12,428) [*Mount Goddard*]

Named by Theodore S. Solomons in 1895 as one of the Evolution Group. (T. S. Solomons.)

Herbert Spencer, author of *Principles of Philosophy*, 1860-1896; born in Derby, England, 1820; died in 1903.

SPILLER CREEK, LAKE [*Bridgeport*]

J. Calvert Spiller, topographical assistant with Lieutenant M. M. Macomb on the Wheeler Survey expeditions in Yosemite region, 1878-1879. (S.C.B., 1918, X:3, plate opposite p. 369; *Annual Report of the Chief of Engineers, War Department,* for 1879, Appendix OO, pp. 2110-2144, 2233-2238.)

SPLIT MOUNTAIN (14,051) [*Bishop*]

"To the north of this gap the crest rises into a huge mountain with a double summit . . . which I called Split Mountain." (Bolton Coit Brown, in S.C.B., 1896, I:8, p. 309.) Called Southeast Palisade by Wheeler Survey, also known as South Palisade, but not properly part of the Palisade range. (J. N. Le Conte.)

First ascent by Mrs. Helen M. Le Conte, Joseph N. Le Conte, Curtis M. Lindley, July 23, 1902. (S.C.B., 1903, IV:4, p. 262.)

STANFORD, MOUNT (13,983) [*Mount Whitney*]

"Professor Bolton Coit Brown first climbed this fine peak [August, 1896], giving it the name of Mount Stanford. As the latter name has been applied to a peak near the Placer County summit, it may be held to be ineligible in this case. In such event, Professor Brown suggests the substitution of the name 'Stanford University Peak,' the similar peak to the northeast in the main Divide being the 'University of California Peak.' The Stanford Peak has two crests. The northernmost, a little the higher and accessible with great difficulty, is the one to which the name Stanford was especially applied by Professor Brown. The other was named by him 'Gregory's Monument,' from Mr. Warren Gregory, who first climbed it. This magnificent viewpoint is easily reached from Harrison's Pass." (David Starr Jordan, in S.C.B., 1900, III:1, p. 109. See, also: S.C.B., 1897, II:2, pp. 92-94; S.C.B., 1899, II:5, p. 275; Vernon L. Kellogg, in *Sunset Magazine,* November, 1899, p. 17.)

STANFORD, MOUNT (12,826) [*Mount Goddard*]

Named by R. B. Marshall, U.S.G.S., for Leland Stanford (1824-1893), one of the organizers of the Central Pacific Railroad. (R. B. Marshall.) Not to be confused with the peak on the Kings-Kern divide previously named for Stanford University.

STARR KING, MOUNT (9179) [*Yosemite*]

Thomas Starr King; born in New York City, 1824; pastor of Hollis Street Unitarian Church, Boston, 1848, at age of 24; became famous preacher and lecturer; wrote *The White Hills,* classic description of White Mountains of New Hampshire, 1859; came to San Francisco Unitarian Church, 1860; visited Yosemite, big trees, and Lake Tahoe in 1860; orator for the Union cause in California, 1861-1864; died in San Francisco, 1864.

"In the angle formed by the Merced and the South Fork Cañon, and about two miles south-southeast of Mount Broderick [Liberty Cap], is the high point, called the 'South Dome,' and also, of later years, 'Mount Starr King.' This is the most symmetrical and beautiful of all the dome-shaped masses around the Yosemite; but it is not visible from the valley itself. It exhibits the concentric structure of the granite on a grand scale; although its surface

is generally smooth and unbroken. Its summit is absolutely inaccessible." (Whitney Survey: *Geology*, 1865, pp. 419-420.)

"Did time and opportunity permit, we might climb to its shoulder, and thence obtain that magnificent view; but could not go beyond this without jeopardizing life and limb. Less than a dozen persons have been able to ascend it. The first to do so was Mr. George B. Bayley and Mr. E. S. Schuyler; followed by Geo. Anderson and the writer [J. M. Hutchings], a few days afterwards, who having attached ropes over difficult places, enabled Mrs. A. L. Hutchings and our daughter Florence to ascend it, who were the first and only ladies, at this writing, that have accomplished the difficult task." (J. M. Hutchings: *In the Heart of the Sierras*, 1886, p. 473.)

STATE PEAK (12,609) [*Tehipite*]

Named by R. B. Marshall, U.S.G.S. (R. B. Marshall.)

STRIPED MOUNTAIN (13,160) [*Mount Whitney*]

"That nearest the pass is strikingly barred across its steep craggy summit with light streaks. As this is an unusually marked case of this peculiarity and as it seems well occasionally to have a mountain whose name bears some relation to its visible character, I called it Striped Mountain." (Bolton Coit Brown, in S.C.B., 1896, 1:8, p. 309.)

SUGARLOAF (7997), CREEK, MEADOWS [*Tehipite*]

Named by Brewer party of the Whitney Survey, June, 1864. (Whitney Survey: *Geology*, 1865, p. 377.)

TABLE MOUNTAIN (13,646) [*Mount Whitney*]

Clarence King in his notes on the ascent of Mount Tyndall, quoted in Whitney Survey: *Geology*, 1865, p. 386, says, "At one place the ridge [between Mount Brewer and Kaweah Peak] forms a level table." The name "Table" appears on Hoffmann's map of 1873.

"The best instance of the Summit Upland on the west side of the basin is that afforded by Table Mountain. This is clearly the remnant of a plateau which has been, and is being, reduced in area by the encroachment upon it of the steep cliffs which encircle the mountain." (Lawson: *The Geomorphogeny of the Upper Kern Basin*, 1904, p. 309.)

First ascent by Paul Shoup, Fred Shoup, Gilbert Hassell, August 25, 1908. (S.C.B., 1909, VII:1, p. 72; and Paul Shoup.)

TABOOSE PASS [*Mount Whitney*]

Piute name of a small edible ground-nut found in Owens Valley. The pass was probably named from a pioneer stage station located where the highway crosses what is now called Division Creek. (W. A. Chalfant.)

TAFT POINT [*Yosemite*]

Named by R. B. Marshall, U.S.G.S., for William Howard Taft, twenty-seventh president of the United States. (R. B. Marshall.)

TAMARACK FLAT [*Yosemite*]

Named for the prevalent tree of the upper timber belt of the Sierra, Tamarack Pine, *Pinus murrayana;* called by Jepson, Tamrac Pine.

Collected by John Jeffrey, of the Oregon Botanical Association, of Edinburgh, in the Siskiyou mountains in 1852 and again near Walker's Pass in the Sierra Nevada in 1853; named for Andrew Murray, of Edinburgh. Also called Murray Pine, Pitch Pine, Red Pine. "In the Rocky Mountains it is universally known as Lodgepole Pine, a name far preferable to the unfortunate folk-name, 'Tamrac,' accepted in California, since the latter suffers confusion with the true Tamarack or eastern Larch." (Jepson: *Silva of California*, 1910, pp. 81-82.)

"We came to what I finally called 'Tamarack Flat,' although the appealing looks of the grizzlies we met on their way through this pass to the Tuolumne caused me to hesitate before deciding upon the final baptism; the grizzlies did not stay to urge any claim, and being *affectionately* drawn to the trees, we named the camp 'Tamarack Flat'." (Bunnell: *Discovery of the Yosemite*, 1880, p. 316.)

TEHIPITE DOME, VALLEY [*Tehipite*]

"*Tehipite* is an Indian word, and by these people was applied to the massive granite tower. Its interpretation is 'high rock.' The accent is on the antepenultimate. The *Te* is sounded short and blended with *hip*, which is a combination of short *i* and short *e;* the third syllable, *i*, is short and guttural, and the last, *e*, is spoken very rapidly and abruptly and pronounced 'teh'." (L. A. Winchell: *Manuscript*, 1896.)

The valley was discovered by Frank Dusy in 1869. After several visits in the next few years, he succeeded, 1879, in breaking a trail and getting animals down. On this occasion he took the first photograph ever made of the dome. (L. A. Winchell.) Other accounts say that Dusy found evidence of former visitors. (Elliott: *Guide to the Grand and Sublime Scenery of the Sierra Nevada*, 1883, pp. 15-16.)

TENAYA CREEK, LAKE [*Mount Lyell*]

Often spelled Teneiya.

"Looking back to the lovely little lake, where we had been encamped during the night [about June 5, 1851], and watching Ten-ei-ya as he ascended to our group, I suggested to the Captain [Bowling] that we name the lake after the old chief, and call it 'Lake Ten-ei-ya'. . . . 'Gentlemen, [he said,] I think the name an appropriate one, and shall use it in my report of the expedition. Beside this, it is rendering a kind of justice to perpetuate the name of the old chief.' . . . The Indian name for this lake, branch and cañon, 'Py-we-ack,' is, although a most appropriate one, now displaced by that of the old chief Ten-ei-ya. Of the signification of the name Ten-ei-ya, I am uncertain; but as pronounced by himself, I have no doubt of its being pure Indian." (Bunnell: *Discovery of the Yosemite*, 1880, pp. 236-238. See, also, pp. 203-204.)

TEN LAKES [*Yosemite*]

"A glacier basin with ten glassy lakes set all near together like eggs in a nest." (Muir, letter of October 8, 1872, in Badè: *Life and Letters of John Muir*, 1923, I, p. 344.)

"In Lake Hollow, on the north side of the Hoffmann spur, immediately

above the great Tuolumne cañon, there are ten lovely lakelets lying near together in one general hollow like eggs in a nest." (Muir: *The Mountain Lakes of California,* in *Scribner's Monthly,* January, 1879, p. 412; also, Muir: *Mountains of California,* 1894, p. 100.)

THARPS ROCK (10,654) [*Tehipite*]

Hale D. Tharp, a native of Michigan, settled in Three Rivers region in 1856; visited Giant Forest, 1858; used Giant Forest region as cattle range from 1861 to 1890; the first white man to explore this region; used a hollow sequoia log as a summer camp (hence Log Meadow), and entertained John Muir there in 1875; born 1828, died 1912. (Walter Fry, in *Sequoia National Park History Bulletin* No. 1, November 22, 1924; Muir: *Our National Parks,* 1904, pp. 304-305.)

THOMPSON, MOUNT (13,494) [*Mount Goddard*]

Professor Almon Harris Thompson (1839-1906); associated with J. W. Powell in exploration of Colorado River, 1870-1878, and member of expedition through Grand Cañon in 1872; geographer, U.S.G.S., 1882-1906. Mountain named by R. B. Marshall, U.S.G.S. (R. B. Marshall.)

THREE BROTHERS [*Yosemite*]

"The Indian name for the three rocky peaks near which this capture was made was not then known to any of our battalion, but from the strange coincidence of three brothers being made prisoners so near them, we designated the peaks as the 'Three Brothers.' I soon learned that they were called by the Indians 'Kom-po-pai-zes,' from a fancied resemblance of the peaks to the heads of frogs when sitting up *ready to leap.* A fanciful interpretation has been given the Indian name as meaning 'mountains playing leap-frog,' but a literal translation is not desirable." (Bunnell: *Discovery of the Yosemite,* 1911, p. 152.)

"Three points which the Indians know as 'Eleacha,' named after a plant much used for food, but which some lackadaisical person has given the commonplace name of 'The Three Brothers'!" (Hutchings: *Scenes of Wonder and Curiosity in California,* 1860, p. 94. See, also, Hutchings: *In the Heart of the Sierras,* 1886, pp. 67, 395.)

"*Wawhawke.* The Three Brothers; said to mean 'falling rocks.' The usual name given as that of the Three Brothers is 'Pompomposus,' equivalent to 'Kompopaise' given by our interpreter as the name of the small rock a little to the west of the Three Brothers. It was said to mean 'Leaping Frog Rock.' . . . The common idea is that the Indians imagined the mountains to be playing 'Leap Frog.' It would remain, in that case, to show that the Indians practice that, to us, familiar game; we have never caught them at it." (Whitney Survey: *The Yosemite Book,* 1868, pp. 16-17.)

THUNDER MOUNTAIN (13,578) [*Mount Whitney*]

Named by George R. Davis, U.S.G.S. (R. B. Marshall.)

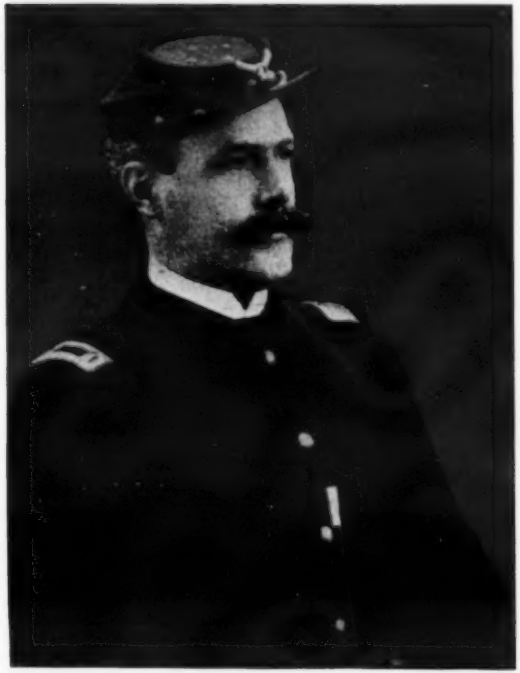
TIOGA PASS, ROAD [*Mount Lyell*]

Named from Tioga Mine; origin of name uncertain.

The road was built by the Great Sierra Consolidated Silver Mining Com-

LIEUTENANT MONTGOMERY MEIGS MACOMB, U. S. A.
Leader of Wheeler Survey Party in Yosemite region, 1878-1879

ISRAEL C. RUSSELL
1852 – 1906
Leader of United States Geological Survey Researches in Mono Lake and Mount Lyell regions, 1881-1883



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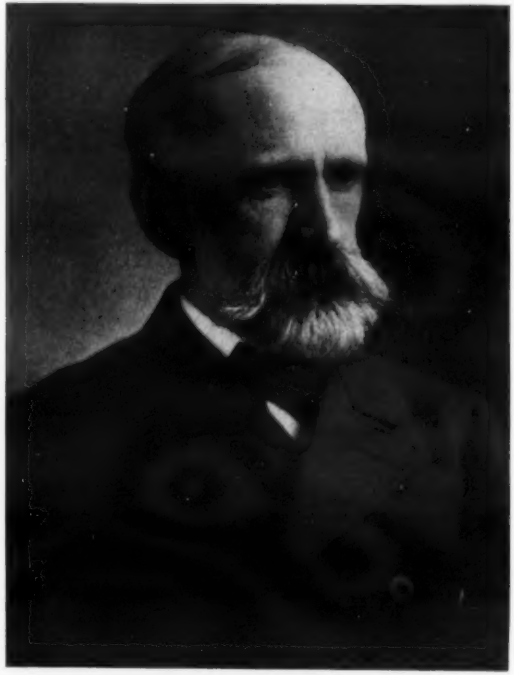

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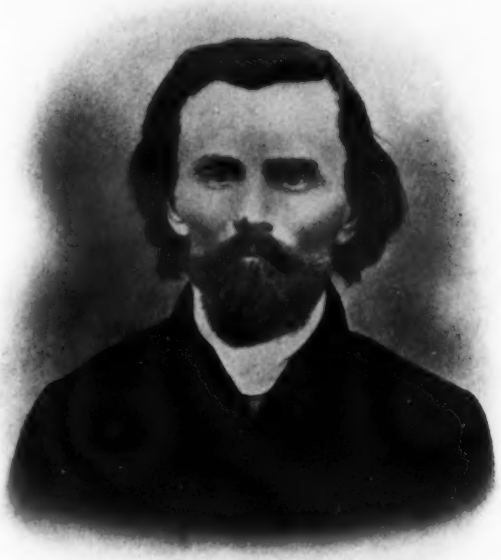

HALE D. THARP
Discoverer of the Giant Forest in 1858

JOSEPH REDDEFORD WALKER
1798 – 1876
Whose party saw Yosemite while crossing the Sierra Nevada in 1833
(Courtesy of Missouri Historical Society)

pany in 1882 and 1883 at a cost of about $61,000; properly called "The Great Sierra Wagon Road"; abandoned soon after completion on account of closing down of mines. (*Report of the Commission on Roads in Yosemite National Park, California,* dated December 4, 1899, Senate Document 155, 56th Congress, 1st Session, 1900.) The road was purchased from successors of mining company by private subscription in 1915 and donated to Federal Government.

"There is also another gap on the north side of Mount Dana, which is called MacLane's Pass; it is about 600 feet lower than the Mono Pass, and has been examined, in behalf of the county, by a committee appointed to search out a better route than the present one across the mountains, in this vicinity; what conclusion was arrived at we have not ascertained." (Whitney Survey: *Geology,* 1865, p. 434.)

TULAINYO LAKE [*Mount Whitney*]

Situated on the crest of the Sierra at elevation of 12,865 feet, with no apparent outlet; the county line runs through it, so it is partly in Tulare and partly in Inyo; the name, a combination of the two county names, was devised by R. B. Marshall, U.S.G.S. (S.C.B., 1917, X:2, p. 231; R. B. Marshall.)

TUNEMAH PASS, PEAK (11,873) [*Tehipite*]

"This trail acquired its name of Tunemah in a peculiar manner. The sheepherders in that part of the country employed Chinese cooks. Owing to the roughness of the path they gave vent to their disgust by numerous Chinese imprecations. Gradually the most prominent settled itself onto the trail and it became known as 'Tunemah'." (Elesa M. Gremke: *To Tehipite Through Silver Canyon,* in *Sunset Magazine,* March, 1901, vol. VI, no. 5, p. 139.)

The pass and peak were named from the trail.

TUNNABORA PEAK (13,593) [*Mount Whitney*]

Origin of name uncertain. First ascent by George R. Davis, U.S.G.S., August, 1905. (S.C.B., 1917, X:2, p. 231.)

TUOLUMNE RIVER, MEADOWS, CAÑON

"There was a tribe called Tawalimni, Towolumne, or Tuolumne, possibly Miwok but more probably Yokuts, in the plains of the San Joaquin Valley in the vicinity of the lower Tuolumne and Stanislaus rivers up as far as about Knights Ferry. The word Tawalimni, which perhaps was really Tawalamni or Tawalumni, would easily give rise, in either English or Spanish, to Tuolumne. The signification is unknown, but its ending, *-imni, -amni,* or *-umni,* occurs in many names of Yokuts tribes and Miwok and Maidu villages in the valley portion of the San Joaquin-Sacramento drainage. Usually the stems of such words cannot be assigned a meaning even by Indians. The interpretation 'stone house or cave' is very unlikely, since the California Indians never built in stone, and the term would therefore be applicable only to dwellers in caves or rock shelters, which demand a mountain habitat; whereas both the location of the Tawalimni and the distribution of nearly all Indian place names ending in -imni seem to be confined to the plains." (Kroeber: *California Place Names of Indian Origin,* 1916, p. 64.)

JOSEPH REDDEFORD WALKER
1798 – 1876
Whose party saw Yosemite while crossing the Sierra Nevada in 1833
(Courtesy of Atlanta Historical Society)

HALE D. THARP
Discoverer of the Giant Forest in 1858

TYNDALL, MOUNT (14,025) [*Mount Whitney*]

First ascended by Clarence King and Richard Cotter, July, 1864: "We had now an easy slope to the summit, and hurried up over rocks and ice, reaching the crest at exactly twelve o'clock. I rang my hammer upon the topmost rock; we grasped hands, and I reverently named the grand peak *Mount Tyndall.*" (Clarence King: *Mountaineering in the Sierra Nevada,* 1872, p. 75.)

John Tyndall (1820-1893); professor of natural philosophy, Royal Institution, London, from 1853; author of many publications on physical science; developed theory of fracture and regelation of glaciers; explored the Alps for many years; first ascent of the Weisshorn, 1861; author of *Glaciers of the Alps,* 1860, *Hours of Exercise in the Alps,* 1871.

UNICORN PEAK (10,849) [*Mount Lyell*]

"A very prominent peak, with a peculiar horn-shaped outline, was called 'Unicorn Peak'." (Whitney Survey: *Geology,* 1865, p. 427.)

UNIVERSITY PEAK (13,588) [*Mount Whitney*]

Named in honor of the University of California. (J. N. Le Conte.) The name was given in 1890 to the peak north of Kearsarge Pass, but was transferred in 1896 by J. N. Le Conte to the higher peak farther south, while the former peak was named Mount Gould. (See MOUNT GOULD.)

First ascent by J. N. Le Conte, Helen M. Gompertz, Belle J. Miller, Estelle Miller, July 12, 1896. (S.C.B., 1897, II:2, pp. 83-84.)

VANDEVER, MOUNT (11,800) [*Kaweah*]

General William Vandever (1817-1893); member of Congress from sixth district of California, 1887-1891; introduced bills establishing Yosemite, Sequoia, and General Grant national parks, enacted September 25, 1890, and October 1, 1890, (*Mount Whitney Club Journal,* 1902, No. 1, p. 35); member of Congress from Iowa, 1859-1861; brigadier-general, 1862, and brevet major-general, 1865; Indian inspector, 1873-1877; settled in Ventura, California, 1884.

VERMILION VALLEY [*Mount Goddard*]

Named by Theodore S. Solomons and Leigh Bierce, September, 1894. (S.C.B., 1895, II:6, p. 227.)

VERNAL FALL [*Yosemite*]

"The middle or main branch [of the Merced] was designated by the Yosemites —from the fork of the Glacial branch [Illilouette Creek] up to the Vernal Fall —as Yan-o-pah, because they were compelled to pass through the spray of the Vernal, to them a 'little cloud,' while passing up this cañon. . . . I suggested Vernal, as an English name for Yan-o-pah. [May, 1851.] . . . The cool, moist air, and newly-springing Kentucky blue-grass at the Vernal, with the sun shining through the spray as in an April shower, suggested the *sensation* of spring before the name of Vernal occurred to me." (Bunnell: *Discovery of the Yosemite,* 1880, pp. 204-205.)

"While gazing at its beauties, let us, now and forever, earnestly protest against the perpetuation of any other nomenclature to this wonder than

'Pi-wy-ack,' the name which is given to it by the Indians, which means 'a shower of sparkling crystals,' while 'Vernal' could, with much more appropriateness, be bestowed upon the name-giver, as the fall itself is one vast sheet of sparkling brightness and snowy whiteness, in which there is not the slightest approximation, even in the tint, to any thing 'vernal'." (Hutchings: *Scenes of Wonder and Curiosity in California,* 1860, p. 113.)

"Mr. Hutchings, in criticising the name Vernal, has misstated the Indian name for this fall, furnished him by myself. . . . The name given by the Yosemites to the Ten-ie-ya branch of the Merced was unmistakably Py-we-ack. This name has been transferred from its original locality by some *romantic* preserver of Indian names. While passing over to Yan-o-pah, it was provided with an entirely new signification. It is indeed a laughable idea for me to even suppose a worm- and acorn-eating Indian would ever attempt to construct a name to mean *'a shower of sparkling crystals'.*" (Bunnell: *Discovery of the Yosemite,* 1880, p. 207.)

VIDETTE, EAST (12,742), WEST (12,229) [*Mount Whitney*]

"Two of these promontories, standing guard, as it were, the one at the entrance to the valley and the other just within it, form a striking pair, and we named them the Videttes." (C. B. Bradley, in S.C.B., 1889, II:5, p, 272.)

VOGELSANG PEAK (11,511), LAKE, PASS [*Mount Lyell*]

Named by H. C. Benson for Alexander Theodore Vogelsang, president of the California State Board of Fish and Game Commissioners, 1896-1901; First Assistant Secretary of the Interior, 1916-1921. (H. C. Benson.)

VOLCANIC KNOB (11,153) [*Mount Goddard*]

Named by Theodore S. Solomons in 1894. (T. S. Solomons.)

VOLCANO CREEK, FALLS [*Olancha*]

(See GOLDEN TROUT CREEK.)

"The third day we camped on Whitney Creek, upon which we tried unsuccessfully to impress the name 'Volcano Creek,' as that stream does not rise in the vicinity of Mt. Whitney. We lay over a day at this point to explore the craters of two extinct volcanoes and to feast on rainbow trout." (W. B. Wallace, in *Mount Whitney Club Journal,* 1902, No. 1, p. 2.) Lieutenant Henry B. Clark, U.S.A., also derived the name from the craters and used it on his map in 1899. (S.C.B., 1904, V:1, pp. 79-80.) On current U.S.G.S. maps the creek is called Golden Trout Creek, but the falls are indicated as Volcano Falls.

VOLUNTEER PEAK (10,503) [*Bridgeport*]

(See REGULATION PEAK.)

WALKER PASS [*Kernville*]

WALKER RIVER [*Dardanelles, Bridgeport*]

Joseph Reddeford Walker; born in Tennessee, December 13, 1798; emigrated to Missouri, 1819; went to the Rocky Mountains, 1832; led a party of Bonneville's expedition from Great Salt Lake to California, 1833, ascending Walker River and crossing the Sierra Nevada between the Tuolumne and Merced

rivers; returned to the Rocky Mountains, 1834, crossing the Sierra at head of Kern River by Walker Pass; continued as trapper and guide in Rocky Mountains and West; in 1843 guided a division of the Chiles immigrant party across Walker Pass to California; guide of Fremont party of 1845-1846, leading a portion of the party across Walker Pass; after further extensive wanderings and explorations, settled in Contra Costa County, California, where he died October 27, 1876. (Bancroft: *History of California*, v, pp. 765-766.)

Walker and his party, crossing the Sierra in 1833, were undoubtedly the first white men to see Yosemite Valley and the big trees (Merced or Tuolumne Grove). (*Narrative of Zenas Leonard*, Clearfield, Pennsylvania, 1839; republished, Cleveland, 1904, pp. 170-181.) If Walker Lake at the foot of Bloody Cañon was named for Joseph R. Walker on the assumption that he passed that way, it is probably an error, as it seems most unlikely that he crossed by that route. (F. P. Farquhar.)

WALLACE, MOUNT [*Mount Goddard*]

"At a distance of two miles it [the wall of Mount Darwin] rises perpendicularly five or six hundred feet, forming Mt. Haeckel, and a mile beyond again rises several hundred feet higher, though not quite so sharply, forming the peak called Mt. Wallace. . . . Next morning [July 16, 1895] we climbed Mt. Wallace." (Solomons: *Mount Goddard and Its Vicinity*, in *Appalachia*, 1896, pp. 48-49.) The name was subsequently transposed on the U.S.G.S. map to the westerly ridge of Mount Darwin, but has since been restored to original location.

Alfred Russell Wallace (1823-1913), English scientist, who developed theory of evolution contemporaneously with Darwin.

WANDA LAKE [*Mount Goddard*]

Named by R. B. Marshall, U.S.G.S., for one of the daughters of John Muir, Mrs. Wanda Muir Hanna. (R. B. Marshall.) Described as one of the Crystal Lakes by J. N. Le Conte in 1904. (S.C.B., 1905, v:3, pp. 236-237.)

WARREN, MOUNT (12,387) [*Mount Lyell*]

"By some unaccountable mistake, the name of Castle Peak was afterwards [after G. H. Goddard had given the name "about ten years ago"] transferred to a rounded and not at all castellated mass about seven miles north of Mount Dana; but we have returned the name to the peak where it belongs, and given that of General Warren, the well-known topographer and engineer, to the one on which the entirely unsuitable name of Castle Peak had become fixed." (Whitney: *The Yosemite Book*, 1868, p. 85.)

Gouverneur Kemble Warren; graduate of West Point, 1850; commissioned in Engineer corps; distinguished in battle of Gettysburg; brevet major-general in Civil War; lieutenant-colonel in regular establishment, 1879; died 1882. Wrote notable memoir of early western explorations, published in *Pacific Railroad Survey Reports*, vol. XI, 1859.

WASHBURN LAKE [*Mount Lyell*]

Named by Lieutenant McClure in 1895 for Albert Henry Washburn, of Wawona. (N. F. McClure.)

WATKINS, MOUNT [*Yosemite*]

Carleton E. Watkins, one of the earliest photographers of Yosemite, whose views were widely celebrated in the sixties. A view of Mirror Lake with Mount Watkins reflected was especially popular, and doubtless led to his name being affixed to the mountain.

Watkins furnished illustrations for the Whitney Survey publications. (Whitney Survey: *Geology,* 1865, p. 408; Whitney: *The Yosemite Book,* 1868, p. 12.)

Indian name *Waijau,* meaning Pine Mountain. (Whitney: *Yosemite Guide Book,* 1870, p. 17.)

WELLS PEAK (11,071) [*Dardanelles*]

Rush Spencer Wells; born in New Mexico, 1874; second lieutenant, artillery, 1898; transferred to cavalry, 1899; first lieutenant, 1901; captain, 1904; major, 1917; colonel, 1920.

WESTON MEADOW [*Tehipite*]

A. I. Weston lived near Visalia, and in the summer took his stock to the mountains, making his headquarters at the meadow. (George W. Stewart.)

WHEELER PEAK (8977) [*Dardanelles*]

George Montague Wheeler (1842-[?]); graduated U. S. Military Academy; second lieutenant, engineers, 1866; assistant engineer in construction of defenses of Fort Point, San Francisco, 1866-1868; first lieutenant, 1867; on geographical reconnaissance in central Nevada, 1869; in charge of Geographical Surveys West of the 100th Meridian, 1871-1879; captain, 1879; retired by illness, 1888; rank of major, 1898.

WHITNEY, MOUNT (14,501) [*Mount Whitney*]

Josiah Dwight Whitney (1819-1896); born Northampton, Massachusetts; A.B., Yale, 1839; New Hampshire State Geological Survey, 1840-1841; Geological Survey of Lake Superior, 1847-1850; Geological Surveys of Iowa and Wisconsin, 1855-1857; State Geologist and chief of California State Geological Survey, 1860-1874; professor of geology, Harvard, 1865-1896; LL.D., Yale, 1870. (Brewster: *Life and Letters of Josiah Dwight Whitney,* 1909.)

In July, 1864, a field party of the California State Geological Survey under William H. Brewer, with Charles F. Hoffmann, James T. Gardner, and Clarence King, saw from Mount Brewer the main crest of the Sierra a few miles away. One peak they named Mount Tyndall. "The other high point, eight miles south of Mount Tyndall, and, so far as known, the culminating peak of the Sierra, was named by the party Mount Whitney." (Whitney Survey: *Geology,* 1865, p. 382.)

"Whitney had forbidden his subordinates to name for him the mountain which is now called after the Rev. Lorentine Hamilton. This time, in their chief's absence, they stood upon their rights of discovery, and called their great peak, Mt. Whitney." (Brewster: *Life and Letters of Josiah Dwight Whitney,* 1909, p. 238.)

Clarence King attempted to reach the summit of Mount Whitney in 1864, but failed by a few hundred feet. (Whitney Survey: *Geology*, 1865, pp. 388-391.) In 1871, King climbed what he supposed to be Mount Whitney and published an account of the ascent. (King: *Mountaineering in the Sierra Nevada*, 1872, pp. 264-281.) On July 27, 1873, W. A. Goodyear and M. W. Belshaw rode mules to the summit of the supposed Mount Whitney and perceived that a peak a few miles north was higher. King, upon learning of his mistake, hastened to the Sierra and ascended the true Mount Whitney, on September 19, 1873, but not before it had several times been ascended by residents of Owens Valley. (King: *Mountaineering in the Sierra Nevada*, 4th edition, 1874, pp. 281-297; James D. Hague, in *Overland Monthly*, November, 1878.)

Occupied by scientific party under Samuel Pierrepont Langley, of the Allegheny Observatory, August and September, 1881, for observations on solar heat. (Langley: *Researches on Solar Heat. Professional Papers of the Signal Service, No.* XV, 1884.) Occupied by parties from Smithsonian Institution and Lick Observatory, 1903, 1908, 1909, 1910, 1913. (S.C.B., 1904, V:2, pp. 87-97; S.C.B., 1910, VII:3, pp. 141-148; *Annual Report of the Smithsonian Institution*, 1910, pp. 65-66.)

Altitude determined in 1905 by R. B. Marshall, U.S.G.S., a fraction over 14,501 feet. (R. B. Marshall.)

WILLIAMSON, MOUNT (14,384) [*Mount Whitney*]

"Farther observations, by Mr. King, showed that a point about two miles northeast of Mount Tyndall was a little higher than this mountain; it was named [by Clarence King] in honor of Major R. S. Williamson, of the United States Engineers, so well known by his topographical labors on the Pacific coast, especially in connection with the United States railroad surveys." (Whitney Survey: *Geology*, 1865, p. 382.)

Robert Stockton Williamson (1824-1882); graduated U. S. Military Academy, 1848, and commissioned in Topographical Engineers; first lieutenant, 1856; captain, 1861; major of Engineers, 1863; lieutenant-colonel, 1869; in charge of surveys in California for Pacific Railroad Survey, 1853, and in northern California and Oregon, 1855. (*Pacific Railroad Survey Reports*, XI, 1859, pp. 74-75, 77-78.)

First ascent by William L. Hunter and C. Mulholland about 1884. (S.C.B., 1894, I:3, p. 87; S.C.B., 1922, XI:3, p. 253. See, also, S.C.B., 1894, I:3, pp. 90-92, 1897, II:1, pp. 17-28.)

WILMER LAKE [*Dardanelles*]

Named by R. B. Marshall, U.S.G.S., for Wilmer Seavey, daughter of Clyde L. Seavey. (R. B. Marshall.)

WILSON CREEK [*Bridgeport*]

Named by Lieutenant Benson for his friend Mountford Wilson, of San Francisco. (H. C. Benson.)

WINCHELL, MOUNT (13,749) [*Mount Goddard*]

Alexander Winchell (1824-1891); professor of physics and later of geology,

University of Michigan, 1853-1872; at Syracuse University, 1872-1877, as chancellor and professor of geology; returned to Michigan University, 1879; state geologist of Michigan, 1859-1862, 1869-1871.

In 1868, E. C. Winchell, of Millerton, gave the name Mount Winchell, in honor of his cousin Alexander, to the point now known as Lookout Point, overlooking Kings River Cañon. (*Daily Morning Call, San Francisco,* September 11, 1872.) Unaware of prior use of the name by his father, Lil A. Winchell gave it in 1879 to a peak south of the Palisades. (L. A. Winchell, in letter to T. S. Solomons, 1896.) The name was transposed by the U.S.G.S. to one of the peaks north of the North Palisade.

First ascent by Harvey C. Mansfield, John M. Newell, Windsor B. Putnam, June 10, 1923. (S.C.B., 1924, XII:1, pp. 90-91.)

WOLVERTON CREEK [*Tehipite*]

James Wolverton, of Three Rivers, hunter and trapper, a veteran of the Union Army, who named the General Sherman tree in Giant Forest in 1879. (Walter Fry.)

WOOD, MOUNT (12,663) [*Mount Lyell*]

Captain Abram Epperson Wood, 4th Cavalry, acting-superintendent of Yosemite National Park, seasons of 1891, 1892, 1893; sergeant of Iowa infantry in Civil War; entered U. S. Military Academy, 1868; second lieutenant, 4th Cavalry, 1872; first lieutenant, 1876; captain, 1883; breveted for gallant service against Indians in Kansas in 1878; died April, 1894. Name given by Lieutenant McClure in 1894. (N. F. McClure.)

WOODS CREEK [*Mount Whitney*]

Named by J. N. Le Conte for Robert Woods, a sheep-owner of the Kings River region. (J. N. Le Conte.)

WOODWORTH, MOUNT (12,214) [*Mount Goddard*]

Benjamin R. Woodworth, who lived for a time in Fresno; son of Commander Selim Woodworth, U.S.N., who came to California from Oregon in 1850. Named about 1888 when Woodworth was with a camping party in Simpson Meadow. (L. A. Winchell.)

YOSEMITE FALLS [*Yosemite*]

"As the 'High Fall,' near which we were encamped, appeared to be the principal one of the Sierras, and was the fall *par excellence,* I gave that the name of 'Yosemite Falls,' and in so naming it I but followed out the idea of the Indians who called it 'Choolook' or 'Schoolook,' which signifies in this case 'The Fall,' while the creek appeared to be known to some as 'Scho-tal-lo-wi,' interpreted to mean 'the creek of the fall'." (Bunnell: *Discovery of the Yosemite,* 1880, pp. 201-202.)

YOSEMITE NATIONAL PARK

Yosemite Valley and the Mariposa Grove of Big Trees were granted to the State of California by act of Congress, June 30, 1864, "upon the express conditions that the premises shall be held for public use, resort, and recreation."

By act of October 1, 1890, a large area surrounding this grant was "reserved

and withdrawn from settlement" and "set apart as reserved forest lands," with the stipulation that regulations by the Secretary of the Interior "shall provide for the preservation from injury of all timber, mineral deposits, natural curiosities, or wonders within said reservation, and their retention in their natural condition." The reservation was designated by the Secretary of the Interior "Yosemite National Park."

Changes in boundaries were made by act of February 7, 1905, adding the northern watershed of Tuolumne River, and eliminating the Mount Ritter and Minaret region, a small area above Lundy, and a considerable area on the west that was largely held in private ownership.

The Legislature of the State of California, by act of March 3, 1905, voted to recede to the United States the grant of 1864. This recession was accepted by joint resolution of Congress, June 11, 1906, and at the same time a small additional area on the South Fork of the Merced was eliminated from the park. The Yosemite Valley and the Mariposa Grove of Big Trees were by this act incorporated in Yosemite National Park.

YOSEMITE VALLEY [*Yosemite*]

Although Yosemite Valley was undoubtedly seen from above by Walker's party in 1833, the first white men to enter it were the members of Major Savage's Mariposa Battalion, March 25, 1851. In discussing what name should be given to the valley, some romantic and foreign names were offered. Dr. Lafayette H. Bunnell, one of the party, suggested "that the name of the tribe who had occupied it, would be more appropriate."

"I then proposed 'that we give the valley the name of Yo-sem-i-ty, as it was suggestive, euphonious, and certainly *American;* that by so doing, the name of the tribe of Indians which we met leaving their homes in this valley, perhaps never to return, would be perpetuated.' . . . Upon a *viva voce* vote being taken, it was almost unanimously adopted."

"Lieutenant Moore, of the U.S.A., in his report of an expedition to the Valley in 1852, substituted *e* as the terminal letter, in place of *y*, in use by us; no doubt thinking the use of *e* more scholarly, or perhaps supposing Yosemite to be of Spanish derivation. This orthography has been adopted, and is in general use, but the proper pronunciation, as a consequence, is not always attainable to the general reader." The Indians recognized the name as that of the tribe, but not of the valley, which they called Ahwahnee. (Bunnell: *Discovery of the Yosemite,* 1880, pp. 61-64.)

J. M. Hutchings, in 1855, in publishing a lithograph of the falls from a drawing by T. A. Ayres, used the name "Yo-Hamite"; whereupon Dr. Bunnell wrote a letter explaining the origin of the name. Hutchings published the letter and at the same time explained the derivation of his version, which he had obtained from Indians who declared the correct pronunciation to be "Yo-Ham-i-te," or "Yo-Hem-i-te." He unwillingly acquiesced in the use of "Yo-Semite." (Hutchings: *Scenes of Wonder and Curiosity in California,* 1860, pp. 75-78.) Hutchings then insisted on using the form *Yo Semite,* explaining that he had it on Bunnell's own authority that this was correct, and that the form *Yosemite* was due to a printer's error. *Yo Semite* was used in the act

of Congress of 1864, granting the valley to the State of California. (Hutchings: *In the Heart of the Sierras*, 1886, p. 61.) As the contentions of Hutchings subsided, the present usage became established, aided no doubt by the wide circulation of the Whitney Survey publications, which used *Yosemite* in all editions.

"Hutchings was right, *Yo-ham-i-te* being the name of the band inhabiting a large and important village on the south bank of Merced River at the place now occupied by Sentinel Hotel and its cottages. These Indians hunted the grizzly bear, whose name—*Oo-hoó-ma-te* or *O-ham'i-te*—gave origin to their own. The tribe next north of the valley called the grizzly *Oo-soó-ma-te*, which doubtless accounts for the euphonious form given by Bunnell and now universally accepted." (C. Hart Merriam: *Indian Village and Camp Sites in Yosemite Valley*, in S.C.B., 1917, x:2, p. 203.)

YOUNG LAKE [*Mount Lyell*]

General Samuel Baldwin Marks Young (1840-1924); acting superintendent of Yosemite National Park, 1896; and of Yellowstone National Park, 1907 and 1908. General Young fought throughout the Civil War and in many Indian campaigns, commanded a division in the Spanish War, and was in action in the Philippines. Enlisted as private April 25, 1861; captain, September 6, 1861; colonel, 1864; brevet brigadier-general, 1865; commissioned in regular army, 1866; major, 1883; lieutenant-colonel, 1892; colonel, 1897; major-general of volunteers, 1898; brigadier-general, U.S.A., 1900; major-general, 1901; lieutenant-general, 1903; Chief of Staff, U.S.A., 1903-1904; retired by law, 1904.

YOUNG, MOUNT [*Mount Whitney*]

Rev. F. H. Wales climbed it on September 7, 1881, and named it "in honor of Professor Young, the noted astronomer, now at Princeton." (Elliott: *Guide to the Grand and Sublime Scenery of the Sierra Nevada*, 1883, pp. 49-50.)

Charles Augustus Young (1834-1908); graduate of Dartmouth, 1853; professor of mathematics, Western Reserve, 1857-1866; professor of natural philosophy and astronomy, Dartmouth, 1866-1877; professor of astronomy, Princeton, 1877-1908.

ZUMWALT MEADOW [*Tehipite*]

Meadow in Kings River Cañon, named for its former owner, Daniel Kindle Zumwalt (1845-1904); came to California, 1854; educated in Sacramento; settled in Tulare County, 1872; land agent and attorney for Southern Pacific; organizer of water and canal companies; active in movement to preserve big trees resulting in establishment of Sequoia and General Grant national parks.

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HELEN MARION GOMPERTZ LE CONTE

APRIL 11, 1865 – AUGUST 26, 1924

By J. S. Hutchinson

THE Sierra Club was organized in 1892, with Helen Marion Gompertz as one of its charter members. Long prior to that she had been deeply interested in the mountains of California, although her first trip into the really High Sierra was during that year, when she, with a party of intimate friends, made a tramping trip to Yosemite Valley and Tuolumne Meadows and climbed Mount Lyell. From the time of the formation of the club, she was one of its most ardent and faithful supporters, and always manifested a most devoted, intelligent, and constructive interest in its work.

Every summer, year after year, except when imperative home duties prevented, she turned toward the mountains. Her favorite camping-spots were in the Kings and Kern river regions and in Yosemite and its environs. Nine times she camped in Yosemite Valley and eight times in the Kings and Kern regions, and again and again at her beloved Porcupine Flat camp. As soon as her children were old enough, they were always with her in the mountains, and she instilled in them her own deep love for the Sierra.

In her earlier camping days she wrote many articles about her various trips, and these were published either in the Sierra Club Bulletin or in the *Sunset Magazine*. All were written in a clear, intelligent, and interesting style, reflecting her deep and intense love of nature, showing her affection for the mountains, and giving glimpses of her character.

In May, 1894, appeared her first article. "A Tramp to Mount Lyell,"* an account of a trip which she and three companions, with one diminutive burro named "Jingle," made into this then comparatively unknown region. Describing their arrival at Tuolumne Meadows in the days when there were no bridges across the river, she says:

"Emerging from the rocky pass, we found ourselves upon the beautiful green level of Little Tuolumne Meadows. Soon we reached

* Sierra Club Bulletin, vol. i, no. 4, p. 136.

the river itself. This was our Rubicon, and how to cross it was the question. . . . This broad stream seemed to defy us. We knew that Mr. Lambert was there.* He now appeared on the opposite bank and called to us that he would cross.

"In a few minutes we saw him mounted on a small, gray, woolly mule, which looked much like a drowned rat when he emerged from the river. Its rider told us it had been abandoned by a government survey party on account of its vicious temper. The animal seemed determined to kick anyone to death who attempted to mount it. Mr. Lambert had made the discovery that if it were mounted on the right side instead of the left, it made no resistance, and that in reality it was not vicious, but only capricious. He kindly placed it at our disposal, and when the first lady was safely upon its back, said to the other, 'Now you get on behind and keep your feet up when you get to the middle of the stream.'

"In vain were our protests that the poor little mule could not carry us both. The rest agreed that the mule was tough, and, encouraged by peals of laughter, the animal plunged into the broad but shallow stream. 'Oh, for a kodak!' was shouted after us as we proceeded. Then fainter came the warning, 'Don't forget to get off on the right side!' In midstream we balanced ourselves as best we could on this mite of a quadruped, and finally made a safe landing, dismounted as we had been warned to do, on the right side. We had to push it back into the river by main force, in order that our companions might cross. Then it was our turn to long for a camera."

On this same trip, the night before their ascent of Mount Lyell, they camped at the upper end of Lyell Meadows. Mrs. Le Conte was always deeply thrilled by the evenings in camp and wrote feelingly about them. She says: "Before I slept I looked out upon the amphitheater of bare peaks, which, catching the last faint glow of sunset, took on a softer outline and seemed to look down protectingly upon us daring mortals. As I looked, the full moon appeared above the summit; the rose color changed to violet, then faded to gray and made way for the silvery splendor which lit up the heavens and was reflected upon the glistening snow beneath."

And again in the same article appears this: "Those days made for me a pastoral symphony, of which the theme lives in my mem-

* Mr. Lambert then owned the Soda Springs property, which years afterwards was acquired by the Sierra Club.

ory, and the cadences rise and swell ever new and majestic to the inward ear. I can but recall it now with added pleasure and grateful remembrance to Mr. Le Conte, who made the trip possible and was largely responsible for its success."

In another article, "Up and Down Bubbs Creek,"* she wrote concerning a camping trip she made in 1896: "A day or two later found us camped at the foot of University Peak, just west of Kearsarge Pass. A stormy day followed by an evening calm, and then it was our good fortune to see the sunset redden the sharp pinnacles which followed the western spur of the dominant peak. We watched the jagged reflections in the chain of gem-like lakes at their base. Not a ripple marred the mirror calm of the water. It glowed with colors—amethyst, violet, deep purple, and then grew black and starry with the sky—a good omen for the morrow's climb of University Peak."

On the following day they all made the first ascent of University Peak, and a few days later climbed Mount Brewer.

On this same trip they also ascended Mount Gardner, and she thus humorously describes the process of taking photographs from the top of the ragged boulder at the extreme summit: "We watched the others as they hurled down a boulder or two in order to place the tripod firmly. The tiny space thus cleared gave room for nothing but the camera, and every time the shutter was to be adjusted or the cap removed Mr. Le Conte had to crawl through between the tripod legs and back again. This acrobatic performance reminded us forcibly of the man of whom it was said—'He crawled through himself, swallowed himself and smiled with greatest agility.' "

In May, 1900, in an article entitled "A Closer Acquaintance with Yosemite,"† she describes one of her camping trips in Yosemite, gives suggestions as to fixing up a camp, camping outfit, etc., and also gives an account of a trip to Soda Springs, Mount Conness, and Cathedral Peak.

In 1901 appeared "Practical Hints on Camp Cookery,"‡ containing many valuable suggestions. By way of general advice, she says: "The most delightful thing about camp cooking is that most everyone is hungry, and with that as the underlying fact, I shall insist upon the maxim first and foremost and all the time, 'Be sure you

* Sierra Club Bulletin, vol. ii, no. 2, p. 79.
† *Sunset*, vol. v, no. 1, p. 23.
‡ *Sunset*, vol. vi, no. 6, p. 199.

HELEN MARION GOMPERTZ LE CONTE
1865 – 1924

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have enough,' which being interpreted means three times as much as you would ordinarily consider enough." Accompanying the article is a good picture, entitled "Flipping the Good Old Flapjack."

In "A Day's March in the High Sierra"* she describes a trip from Collins Meadow down into Tehipite: "There we lingered a day or two, never tired of watching the play of light and shadow on that magnificent rock (Tehipite Dome), rivaled only in my opinion by El Capitan and Half Dome in Yosemite."

"The Sierra Club in the Kings River Canyon"† was written in 1903. Here she says: "What store of happy memories we carry back with us each year! What pictures that refresh the inward eye when wearied with its daily rounds! What greater gift has California for her children than the glorious Sierra, whose melting snows not only water the thirsty plains below, but in whose fastnesses we find a free renewal of life, youth, and joyous freedom!"

All her articles are filled with similar fine touches which show the thrill and joy she had from her communion with nature.

The influence of Mrs. Le Conte's affectionate nature, winning ways, and wonderful personality is shown in the scores of sincere and sympathetic letters written by her hosts of loving friends, in August, 1924. These letters came from people in all walks of life—from those whom she had assisted in obtaining positions, those whom she had taught in the schools, those to whom she had given encouragement and wise counsel, those who were her devoted companions and friends, and those who had shared with her the joys of the mountains. I can refer to and quote from a very small number of this list of letters. A few of them read as follows:

> "It brought back to me the recollection of how kindly Mrs. Le Conte received me, when she was Miss Gompertz and was liked in the Kellogg School, when I was a student there. Hers was the kindest treatment that I had received up to that time, since my landing in the United States. The impression she made upon me has and will ever remain with me. The lady whose cheerfulness and good-heartedness made such an impression upon a stranger in the land must certainly have been a wonderful companion."

> "Your home always has meant Berkeley to me almost more than any other. My first happy incident after we went

* *Sunset*, vol. vii, no. 4, p. 99.
† *Sunset*, vol. xi, no. 3, p. 250.

there was connected with Helen, when she warmed my heart and cheered my inner man by bringing a luncheon tray to me, a complete stranger, when I was moving in."

"Her fine spirits, cheerfulness, understanding and ready helpfulness, her discriminating and courageous intelligence, her complete devotion and love, . . . As time goes on, the richness of Mrs. Le Conte's life will be ever and ever a greater and greater treasure . . . as memory gathers up and orders all the beautiful and happy things for which she stood."

"And I think now of the fullness and beauty of her life, . . . and of the happiness that she radiated."

"I often think of the very delightful hours that run through many years that we had spent with . . . Helen in the mountains, . . . and the memory of her kindness and courtesy, her fine comradeship, and her splendid womanly character remains an encouraging influence and kindly inspiration to all who knew her."

I have referred directly to but a very few of the scores of letters received at that time. Running through letter after letter are references to her "cheerfulness," her "cordiality," her "usefulness," her "vivid personality," her "unselfishness," and her "fine character." They are a wonderful tribute.

She was ever ready, for the benefit of her friends, to give of her time and energy in any gathering. For example, the following delightful little story, describing an actual occurrence, was written by her, quite spontaneously, at her beloved Porcupine Flat camp in 1921, for the entertainment of her camp companions at one of our camp-fire gatherings.

CHINQUAPIN

SHE, WHO WAS THE FOSTER MOTHER OF CHINQUAPIN,
TO HER AFFECTIONATELY DEDICATED
BY THE AUTHOR

It was Fourth of July and we were far away from noisy desecration, living in the quiet pine forest, beside the Golden Pebble Brook, which there made happy little sounds, not knowing that its flowing ended in the brawl of a cataract.

A dark-eyed youth pushed his way through the underbrush, working upstream till he found our peaceful camp

and gave us greeting. Upon his battered straw hat clung tremblingly a bright-eyed baby woodpecker, his red markings barely showing, the rest of him just *fluff!*

"Why, Ansel, where did you get that bird?"

"What bird?" said the astonished Ansel, and "off with his hat!"

Our Lady Bountiful cuddled the baby to her breast and forthwith gave him refuge, and he dwelt within her tents, a welcome guest. Each hour or two, he was fed with every bird dainty that his loving hostess could lay her hands on. If only we could have caught tiny gnats and flies, the whole camp would have been working to feed him. He had, indeed, begun his great adventure early in life, and he was the most companionable little creature imaginable.

Daily, he grew, and seemed to thrive, hopping at first till he got to a tree which he promptly climbed, and clinging to the bark went through the motions of being a *truly* woodpecker. We tried him on dead trees; we watched other woodpeckers, and put him on the same trees, and, always, he seemed pleased, and made believe peck holes and catch flies. Often, he would hop down the little trail from the tents to the dining-table and chirp and call to us cheerfully.

By this time, his Protectress also learned a bit of bird lore. His call for food was insistent, "early and often." At gray dawn, he broke her sleep, and she, like the mother bird, must up and feed him. His contented chirp, his peck and chatter as he stuck his claws into a tree, all meant something to her.

Now his speckled wings began to grow, and proudly he made short flights or climbed 'way out of reach to the tree-tops. One morning, he even visited the other tents and, clinging to a nearby tree, his bright eye was turned expectantly for the slightest move inside the sleeping-bags, and then he flew and lit upon that bag and chattered with glee. Whenever his mistress returned to her tents, he flew confidingly to her breast.

Soon came a day when he disdained hard-boiled eggs, mush and other tempting dainties. Instead of eating, he flew and clung to a tree-top. He was only coaxed down with long fishing-rods, in order to have his picture taken. Just like any other baby, he hated all that fuss, and was only induced to "look pleasant" by the offer of a live grasshopper, which he snapped up greedily and then choked down with many a comical gulp. After this, he returned to his tree and seemed thoughtful, but satisfied. At night he

> still clung to his perch and seemed to say: "Don't bother me, now. I'm almost grown up. 'I eat 'em alive!'" . . .
>
> Who knows what agony of body and mind the little fellow suffered, or how many kicks of the dying grasshopper had wrecked his little insides?—and yet he knew enough to creep back to his Lady's side, and, at dawn, when she thought to hear his call, she saw him stark, beside her. Sorrowful tears and lamentations were heard, that day, in the erstwhile peaceful tents of Porcupine Flat. And to this day, if you can find our Golden Pebble Stream and follow it to our peaceful Grove, you will see a gray boulder, flower-strewn, and marked in simple fashion "Chinquapin."

High up in the wildest parts of the Kings River country, in the Monarch Divide, at the eastern end of the Cirque Crest, in a region little known, lies, in the midst of the eternal snows, one of the most beautiful little alpine lakes in the whole Sierra, and towering above it is a lofty and imposing peak. It was in 1902, one year after their marriage, that Mr. and Mrs. Le Conte explored this wild region.* It was on this trip that they made the very first ascent of the South Palisade, and it was also on this trip that Mr. Le Conte named this entrancingly beautiful lake in honor of his wife, "Lake Marion," and the impressive peak rising above it, "Marion Peak." He says of this lake: "Toward evening, we climbed the steep slope by a series of ledges and finally came out in a tamarack grove at the base of our rock (a beautiful pyramidal rock). Directly at its foot was a beautiful lake, fringed with tiny meadows on one side, and guarded on the other by fine cliffs of white granite, which could be traced far down beneath the clear waters till lost in their blue depths. Across the lake rose a splendid range of peaks of brilliant red slate and pure white granite. Altogether, it was a most charming camping-spot, far removed from the usual routes of travel."

I have visited this lake many times, and always has it been calm and beautiful in its wonderful setting and with its marvelous reflections, a joy and delight, and its memories are everlasting and eternal. So it is with the memories we all have of Helen Le Conte. She reflected the sunshine and beauties of her life and her being, and these memories will be reflected, again and again, throughout all time, through her family, her friends, and all who at any time

* See "Among the Sources of the South Fork of Kings River," by J. N. Le Conte—Sierra Club Bulletin, vol. iv, no. 4, p. 253.

came into contact with her sweet nature. What more fitting monument could there be than this beautiful lake reflecting this wonderful snow-clad peak?

"Whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report, if there be any virtue and if there be any praise, think on these things." These are the things upon which she thought, these are the things she lived, these are the things which she reflected. Her belief and her theory of life were "The Kingdom of Heaven is within you"; and we are all better and the world is better for her radiant, beneficent, brave, and courageous life.

THE SIERRA CLUB ASCENT OF MOUNT CLEVELAND

By John J. Mazza

THE forest ranger and guides at Waterton Lake had so strongly impressed upon us the difficulty of climbing Mount Cleveland, that we could recruit only a small party for the trip. At 6 o'clock on the morning of July 24, 1924, under the leadership of Dick Michaelis, we left our base camp at Waterton Lake (elev., 4186). Following the Waterton Valley trail to the log cabin, about three miles south, we turned eastward, and were soon breaking our way through the brush up the southerly slope to the timber-line.

We had planned the ascent along the southerly ridge, but finding the sheer cliffs on that side inaccessible, were compelled to drop down about fifteen hundred feet and turn eastward past the waterfalls to the east slope. At 4 o'clock we met W. L. Huber, James Rennie, and Walter Marble, who were already returning from the top.

There was no trail, and we had to pick our way as best we could. The climbing was rather difficult, on account of the loose stones and rock-sand. The last mile or two before reaching the flat top was over immense boulders. The first members of the party reached the top (elev., 10,438) at 6 o'clock P.M., while the last did not arrive until 7:30.

The magnificent panorama that spread out before us on all sides is one that we shall never forget. Eastward we looked down into the beautiful Belly River country, with Glenns and Crossley lakes as the center of the picture. The sharp outline of Chief Mountain, in gaudy colors—made even more brilliant by the glow of the setting sun—looms up like a mighty sentinel garbed in oriental splendor. Northward, six thousand feet almost directly below us, are the deep blue waters of Waterton Lake, with our base camp at the southerly extremity. The high mountains recede very rapidly in this direction into the broad expanse of the Alberta prairie. To the northwest the Canadian Rockies continue the crest of the Continental Divide. Westward the Porcupine Ridge in the foreground and Kintla and Rainbow peaks in the distance, with their respective glaciers nestling on the northern slopes, form a rugged and imposing sky-line.

MOUNT CLEVELAND, GLACIER NATIONAL PARK
Photograph by H. P. Rankin

PLATE XIX.

MOUNT CLEVELAND, GLACIER NATIONAL PARK
Photograph by H. P. Rankin

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SIERRA CLUB REGISTER ON SUMMIT OF MOUNT CLEVELAND,
GLACIER NATIONAL PARK
Photograph by Frank H. Lewis

But the finest spectacle of all is toward the south, where the greater portion of Glacier Park spreads out before us. Most of its peaks and nearly all of its glaciers, including Blackfeet, the greatest of them all, can be seen from this point. Mount Merritt, Mount Wilbur, and Mount Grinnell are almost due south. Heavens Peak and Longfellow Peak loom on the southwestern horizon, and, with many other jagged peaks and saw-tooth ridges between them, form a truly imposing and spectacular mountain picture.

We lingered as long as we dared, to drink in this magnificent panorama, signed the register, and started down at 8 o'clock. Darkness overtook us before we were half-way down to the cirque on the easterly slope, which we reached at 11 o'clock. Here most of us camped for the night, after eating what was left of our lunch. We had no blankets, as we had intended returning to camp that night.

Next morning we broke trail through thick brush and joined our party, which that day was moving on to Indian Pass. Those who attempted to reach camp the night before found it impossible to make any headway through the brush, and, after waiting for daylight, reached camp in time for breakfast. The trip was one that requires great endurance and careful scouting, as there is practically no trail. Several of the party suffered from mountain sickness, and their pluck in staying with it to the top was most admirable.

Counting the fifteen hundred feet we dropped because of the cliffs on the south side, we had actually climbed over seventy-seven hundred feet and had traveled from eighteen to twenty miles between 6 A.M. and 11 P.M. The consensus of opinion was that the ascent of Mount Cleveland involves all the difficulties and hardships of the Red Kaweah, Mount Whitney, and Mount Shasta combined.

The following persons signed the club register left at the top: R. Michaelis (leader), R. E. Schenck, Everett F. Davis, Frank H. Lewis, Lucy Hall, Karl H. Weiss, Beulah Hook Mazza, W. K. Guthrie, Catherine Ballenger, Annie I. Holmquist, Helen R. MacGregor, Maude S. Haskell, John J. Mazza.

Neill Wilson, Helen Phillips, Eleanor Davis, and Eleanor Bartlett had made the ascent on July 23d; Norman Clyde, Fred Herz, and Lee Stopple reached the top on July 25th, and returned direct to the camp at Indian Pass by following the goat trail along a narrow and difficult ledge instead of descending to the cirque, as our party had done. This was considered a very remarkable feat.

OUR FIRST SIERRA CLUB OUTING

By George H. Harvey, Jr.*

WHEN, early that morning last July, I poked my uncombed head from my bedroom window in the Belton chalet and saw the khaki-clad swarm descending from the "Sierra Club Special," I realized that the curtain was up on a big new experience and that the dream of years was at last come true.

For weeks, Mrs. Harvey and I had studied maps, guide-books, official pamphlets, and most of all the concise instructions sent us by the club committee. The experience of other outings with other clubs was brought out, dusted, sorted, and sifted—then boiled down and made ready for instant use. Nightly we toiled over plans and specifications for a tent that should be dry, light, stout, bug-proof, and accommodate two grown-ups, with room for normal chest expansion. Daily we weighed socks, candles, shirts, air-beds, rolls of film, and other camp impedimenta, and with each weighing our anxiety mightily increased. For we had heard of the glittering eye and armor-plate heart of the Sierra Club weigh-master, and were afraid.

For us, the outing itself was one grand happy movie in three real weeks. From Belton, by way of McDonald, Bowman, Crossley, and all the other twinkling lakes back to Lewis' and Belton, joy was unconfined and rare experiences were fast piled higher and higher.

First, we liked the crowd. It was such a friendly crowd. Going direct from Denver, we missed the grand get-acquainted trip of the "Sierra Club Special," but once in camp, we were met more than half-way and made to feel immediately at home. We were told that the men's quarters were here, the girls' there, and that we might pitch our tent anywhere at all in that little narrowing space between! Early in the proceedings the management did not hesitate to call public attention to the color and sheen of our socks, which warmed our hearts (the management's notice, not the socks) and made us feel one of you. Whatever we asked, whichever way we turned, we were met with friendliness. That is one of the things that made the outing such a joyous one for us.

* Past-president of Colorado Mountain Club.

LAKE FRANCIS, GLACIER NATIONAL PARK
Photograph by Walter L. Huber

LAKE FRANCIS, GLACIER NATIONAL PARK
Photograph by Walter L. Huber

CROSSLEY LAKE, GLACIER NATIONAL PARK
Photograph by H. P. Rankin

Then, we liked the camps: the tents peeking from the trees by some sparkling lake; strung along the bank of some crystal stream; snuggled close among the timber-line trees on some bleak, wind-swept pass; grouped on the slopes of some high and spacious mountain park—a dozen or more delightful camps, each with a charm of its own.

Again, we liked the commissary. We liked the food—the way it was cooked and the way it was served. It was so hot and good and varied and wholesome and abundant and accessible and appetizing and digestible! An army may travel on its stomach—probably does. Still, even with unsatisfactory food, an army is under discipline and must behave. But an outing, ——! As Mawruss would say, "That is something else yet"! With only self-respect to hold one in check, imagine a motley collection of two hundred pleasure-seekers on a camping trip of three weeks, with uncertain, unsuitable, and unsatisfactory food! Tragedy would reign, and the participants would spend all their spare time killing each other. A satisfactory and well-planned commissary is vital to any successful outing; without it the outing will collapse with a bang. So I want to hand an early and fragrant bouquet to Mr. Colby and those who unselfishly assisted him in preparing and dispensing ours with such tireless good-nature. Surely the club insignia should bear in relief a line of smiling faces behind a line of steaming kettles and the legend "In Hoc Signo Vinces."

We liked the pack-train—the yips and yells of the packers—the wild, dramatic way in which they would swoop down, pick up camp bodily, and with their hundred horses swarm over the trail to the next location, on time and without loss of a bag! It is true that whatever frail timber-line tree we selected as stay for our modest tent was likewise immediately picked by our cowboy friends as a vital link in their unstable rope corral—a swaying, precarious affair, whose towering ambition was to confine the frenzied activities of these same wild, snorting, plunging beasts, the glitter in whose eyes told us plainer than words that they would more gladly trample our tent than pack it. Still, we were fond of the pack-train. We much admired its style and efficiency. We realize how much it did for us and how well.

We liked the camp-fires. Here, after the long day, sore muscles were relaxed and tired bones stretched at length on the ground, while

CROSSLEY LAKE, GLACIER NATIONAL PARK
Photograph by H. P. Rankin

Tap the irrepressible (God bless him!) swelled forth, mighty and triumphant. In many camps we have met many cheer-leaders to whom we owe much and whose praises we sing. But surely never since the first little stars began to peek out and try to form themselves into constellations in the sky has one arisen who can surpass Tap in warming and keeping hot the morale of his party. The Indian war-dance he instigated that cold, soggy night on Browns Pass stands out as an achievement. Only by giving tremendously of his own energy could he so stir and enthuse a sluggish group of sleepy, congealing native sons.

We liked the toe-doctor! While after supper the thoughts of most turned to the camp-fire, there was always a spot in the background behind the trees where yards and yards and yards of adhesive tape were being gently wound round sore feet and suffering toes by one whose great misfortune it was to know just how this should be done. From the first day his work lay plain before him—each night brought him new material and fresh faces. Three hundred and ten yards of tape he used—then the outing stopped! Certain it is that but for him many a pair of feet would never have finished the trip. Such were the demands on his time that surely he saw no lakes, passes, glaciers, nor yet any sunsets. To this day his recollections must begin and end with feet—large, small, pudgy, slim, corned, smooth, shapely, warped, blonde, brunette—one long line of aching and blistered feet stretching from Lake McDonald around the park and back again!

We liked the weather. The heavy undergrowth and moss-hung trees around Lake McDonald assured us that the country was *wet*. Still, for a time it seemed that the rain-resisting ability of our tent was not to be tested. Day followed day of smiling sun and soft autumn haze, with great billowy clouds piled high on the sky-line. In all the outing but two damp interludes! And who would have missed them? . . . The marvelous cloud effects over Lake Bowman when on a fickle day we leisurely rowed to the head of the lake, with obliging trout continually flopping into our boat, and returned, dripping but happy, just in time for a steaming supper. Then dusk —when the low-hung clouds hid all but the feet of the mountains mirrored in the misty lake, and speech was hushed while in utter stillness light slowly yielded to darkness! . . . Again, Gunsight Pass, where the storm took from us the day promised, a day of great

LAKE JANET, GLACIER NATIONAL PARK
Photograph by Walter L. Huber

LAKE JANET, GLACIER NATIONAL PARK
Photograph by Walter L. Huber

ELIZABETH LAKE, GLACIER NATIONAL PARK
Photograph by Philip S. Carlton

gorges, thundering waterfalls, and shining glaciers, topped by shimmering, far-flung views of carved, tumbled mountains, and gave us instead one rarer still, a gusty, stormy day when the snow pelted and the wind whirled the boiling clouds about us, now and then revealing tantalizing glimpses into deep abysses and half-seen lakes, with suddenly some mighty cliff frowning out high overhead, then drifting off in the fog—a day when the rain-splashed rocks flung out their reds and greens with doubled intensity.

And the Park?

As the weeks have crowded in between us and this outing we are more and more impressed with the greatness and beauty, the charm and majesty, the lure and delightfulness of this wonderful park. Time lends perspective and memory brings keener appreciation. We think of the countless lakes, gems of glowing and changeable blues and greens, surpassingly lovely whether asleep in the moonlight or rippling under the noonday sun, whether smiling up into the blue with the glassy surface of dawn, or sponged by the low-hung clouds of afternoon. We think of the deep-forested trails—those of the north, dim, overgrown, and up-ended, those of the more developed section, wide, well-graded, and easy. We think of the mighty forests, tall and silent, a perfect cover for the teeming wild life—the scolding squirrels and trusting marmots; the deer, timid but almost unafraid; the bears, seldom seen and of bad repute. We think of the passes with their sweeping views; we see again the mountain-sheep and the fearless goats skirting the dizzy cliffs above them. We think of the scores of tiny glaciers, and others not so tiny, that cling to the shoulders or sprawl at the feet of great painted cliffs, and send down their milky torrents with roaring rapids and impetuous fall to swell and color the lakes below. And always we think of the colorful rocks of which this park is made, marvelous at all times, but especially brilliant on a rainy day or when broken up to form the mosaic bed of some crystal stream; and the great peaks, like colossal up-turned boats, from which these rocks came, huge roof-like masses of green and maroon and buff, belted here and there with black, towering a mile or more high in bright terraces of color—these the source of all this beauty, its original material laid down on the ocean's floor millions of years ago, now lifted to be cut, carved, and polished by wind and water and ice into one of the world's spectacles.

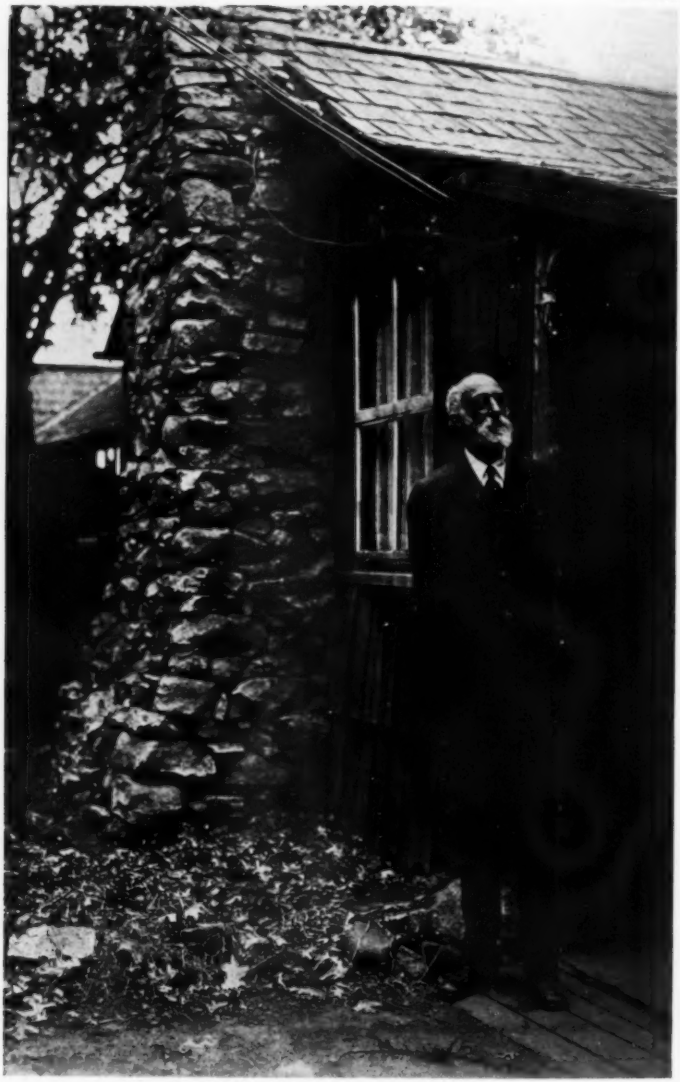
As days pass and the outing recedes, one picture rises higher and

ELIZABETH LAKE, GLACIER NATIONAL PARK
Photograph by Philip S. Carlton

finer and clearer: Evening. In the foreground a gently sloping hillside covered with silent figures, seated. Beyond, a drowsy lake, a great U-shaped valley backed by steep walls, ribbon-like falls, and seamed glaciers. Then a ragged, pinnacled sky-line. Over all, a few peaceful, strung-out clouds—and sunset. The breeze dies down. The lake goes to sleep. The figures sit motionless. And in the deepening twilight a quiet voice gives us intimate glimpses into the life and work, the kindness and friendship, of the greatest, gentlest mountaineer of all—John Muir.

KINTLA AND KINNERLY PEAKS, GLACIER NATIONAL PARK
Logan Glacier in the foreground
Photographed by Fred Herz

UNIV. OF MICH.



CHARLES HOWARD SHINN
At the door of Peace Cabin—1923

CHARLES HOWARD SHINN

APRIL 29, 1852 – DECEMBER 2, 1924

FROM CALIFORNIA DISTRICT NEWS LETTER OF THE U. S. FOREST SERVICE.

ON Tuesday night, December 2, at his daughter's home in Ukiah, Charles Howard Shinn passed on. The funeral was held there Thursday afternoon at 2:30.

Thus much the bare record. But what it means to the California District of the Forest Service, and to all foresters and the cause of forestry in our country, words only haltingly express. No one has said more in few words for him than did the "Sierra Ranger," on that forest to which Mr. Shinn gave longest and most peculiarly his labor of love, when the Shinn place at Northfork was offered for sale: "That hits—doesn't it? A great deal can be crowded into one small sentence—respect, and love, and a tightening of the throat. Peace Cabin is for sale. But the high-mindedness, the fine courage, the inspiration that have come from Peace Cabin, and that are a part of our hearts and purpose, are not in the market. We own the real Peace Cabin. Peace Cabin is not for sale!"

And now Mr. Shinn has passed. But, as truly, his world can never lose him. Other men may serve the cause of forestry in positions of more far-flung responsibility, but few more significantly, and none ever more truly, to his last ounce of energy and life. And to none, we venture, is it given to contribute to his fellows in larger measure of those most priceless possessions of men or organizations, the invisible and eternal foundations of character, spoken of by the "Sierra Ranger."

After seventy-odd years of happy life, Charles Howard Shinn has crossed the Great Divide.

Never again will he look with misty eyes upon the snow-capped peaks and quiet valleys, the forests, the birds, and the flowers he loved so well.

"Peace Cabin" will know him no more, and the kindly cedar at the door, whose sprays of evergreen carried a message of hope and

cheer to countless thousands throughout the world, will never again bow to his gentle touch.

But the message of the forests and the great outdoors that flowed from his magic pen has traveled far afield. To quiet hamlets and busy cities it has carried the breath of the mountains and an inspired plea for the preservation of those wonders which God hath wrought.

His name will ever be emblazoned on the honor-roll of those who have fought a good fight that our children and our children's children may know something of the unspoiled beauties of forests and hills.

And we, his friends,—how we shall miss him! Miss his kindly spirit, his love for all things great and small, and that beauty of life and character that made him a man among men.

This old world would be a hard world indeed to live in were it not for the friendship, and love, and inspiration of such men as Charles Howard Shinn. WALLACE HUTCHINSON

Mr. Shinn has gone on another great adventure. He was intensely curious as to its outcome; but with his wonderful philosophy of this life he knew he would enjoy the next one.

What a joyous life he led, and what an inspiration he has been to all of us! I refuse to be sad over his departure (except that we shall miss him mightily), because death to him was only a transfer and a promotion.

It is given to but few of us to have his courage and his conception of living. I shall treasure my association with him and endeavor to fortify myself with his creed, that I may, when my last transfer comes, meet it with part of his courage and joyousness.

M. A. BENEDICT

ASCENT OF MOUNT MERRITT

By Norman Clyde

ONE of the most striking of the multitude of striking peaks of Glacier Park is Mount Merrit. Whether viewed from the north or the south, it is equally impressive. Rising abruptly—in many places precipitously—five thousand feet above the valleys on either side of it, to an elevation of approximately ten thousand feet above sea-level, in a form of thrilling beauty and sublimity, it is with a feeling of admiration that the mountaineer gazes upon it across the valleys of the Belly River, whether from the region of Mount Cleveland, to the north, or of Mount Wilbur, to the south. The broad forest-clothed, lake-studded cañons far below; the upward sweep of the mountain above timber-level; the spectacular hanging glaciers; the sheer cliffs and towering pinnacles of the upper portion of the mountain—all these arouse in the beholder a feeling of wonder and delight. In beauty and grandeur of form it is not surpassed by any peak in Glacier Park, a region of marvelously picturesque and imposing mountains.

Having surveyed this wonderful mountain from various other peaks during the summer of 1923, the writer was curious to know whether it had ever been climbed, and upon making numerous inquiries received no authentic information in the affirmative. As he scanned it from several mountain summits to the south, it appeared to him that it would be possible to scale the cliff below the principal glacier, cross a portion of the latter, or flank it to the right, and then follow the ridge above it to the summit.

During the past summer, as he surveyed the mountain from Mount Cleveland, it seemed that the crest of this ridge might also be reached by working diagonally from right to left across the face of the peak.

Leaving the camp of the Sierra Club, just below Indian Pass, on the morning of August 27, he hastened down the trail for a few miles, turning aside from it a short distance above Glenns Lake as he hurried southward toward Mount Merritt, and threaded his way upward through a dense forest and along the northwest shoulder of the mountain to the base of the cliffs which rise almost vertically for

over two thousand feet to its summit. His course, as previously outlined, lay transversely to the left along the foot of these crags; but he went directly ahead across the western face of the peak, in pursuit of a pair of mountain-sheep which had leaped up from a shaly slope and after some preliminary maneuvering had bounded away along a ledge which runs horizontally around the mountain. After losing sight of them, thinking that there might be a negotiable chimney on this portion of the peak, he scrambled up the shelves for about five hundred feet; but eventually regarding this move as a waste of time, he faced about to survey the mountains to the west. The scene which he beheld was one of almost indescribable beauty. Far below, in a deep-green, forest-clad valley, nestled a number of turquoise lakes linked together by streams that flowed through aisles of serried fir and spruce, and fed by others that plunged over crags in wild cataracts or bounded down them in snowy cascades. High above them were other lakes at the foot of glaciers that had cut deeply into the gray craggy peaks that nourished them, and beyond the latter, in the distance, were the majestic mountains of the western range, with masses of sunlit cumulus clouds hanging about their summits.

Retracing his way to the point where he had encountered the bighorns, the writer followed the base of the cliffs along shelves and across shaly slopes for a distance of about a mile, and, after rounding a shoulder of the mountain, stood in sight of the ridge whose crest he wished to reach as affording a feasible route to the summit. Directly ahead—looking southward—and to the right were lofty precipices seamed with unscalable chutes; but farther to the left a steep shale—or, rather, scree-slope—led up to lower cliffs having numerous chimneys, some of which seemed to offer a means of arriving at the top of the arête, which was his next objective.

After trudging upward across the sliding loose material and clambering over numerous limestone ledges, he reached the cliffs, and, by following a broad shelf diagonally upward and then a horizontal one for some distance, he reached the foot of a short chimney, by which he crossed a broad band of diorite and gained the crest of the ridge, with the summit still fifteen hundred feet above him. He looked southward across the beautiful hanging glacier that heads just below it and after sweeping downward at a steep angle for some distance breaks abruptly over the mountainside.

DOWN THE NORTH FORK OF BELLY RIVER, GLACIER NATIONAL PARK
Looking from the summit of Mount Cleveland
Photograph by Fred Herz

UNIV. OF MICH.

DOWN THE NORTH FORK OF BELLY RIVER, GLACIER NATIONAL PARK
Looking from the summit of Mount Cleveland
Photograph by Fred Herz

As he scaled the argillite shelves on his way to the summit, there was at first a profusion of alpine flowers which glowed in the bright sunlight; but they gradually became fewer, and then disappeared entirely as the altitude became greater.

The extent of the view increased as he rose higher, reaching its acme as he set foot upon the summit, from which an astonishing panorama of mountain and valley overarched by a sky of matchless blue could be seen in every direction. Near at hand to the north was the great mass of Mount Cleveland, and to the left of it there was a glimpse of the distant Canadian Rockies; nearer, and still farther to the left, were the rugged mountains of the Kintla group, and extending southward from them the imposing array of stately mountains of the Livingston range; southward were the perpendicular precipices of the north face of Mount Wilbur, and beyond the latter a multitude of boldly carved peaks culminating in Mount Rockwell and its neighboring mountains, near the southern border of the park. Eastward, across a border of buff-colored limestone mountains, green undulating plains stretched away to the horizon.

After building a cairn on what appeared to be the highest point, the writer descended several hundred feet in a southerly direction to a saddle, and then scaled a series of argillite pinnacles about equal in elevation to the main peak. There he scrambled about for some time, peering down over the crumbling precipices which drop vertically for many hundred feet. After returning from this excursion, he made his way down the ledges above the glacier, descended a chimney through the belt of diorite, picked his way down more walls of argillite and limestone, crossed to the northwest shoulder of the mountain, and from there sped downward to the trail, just above Glenns Lake. As he followed its course, winding through the forest, toward camp at Crossley Lake, there were many magnificent vistas of Mount Merritt, which then loomed a mile above the shadowy lake and glowed radiant in the light of the setting sun.

SUGGESTIONS FOR A SMALL PARTY PLANNING A TRIP OVER MOUNTAIN TRAILS

FIRST AID

By H. B. Hommon*

DURING the season of 1924, ten million campers or tourists visited the lands under the supervision of the United States Forest Service, and more than 1,600,000 entered the national parks and monuments of the National Park Service. In 1917, the comparative data for the Forest Service and Park Service were 800,000 and 488,000, respectively. Judging from these figures, and from the interest being shown by the national, state, and city governments, in developing highways and trails into the remote sections of the country, it would seem reasonable to expect that during the next decade the number of people visiting the mountains and other scenic places of the country for recreation, hunting, fishing, etc., will at least double the record of the past ten years.

Up to the present time, the largest number of the people who have spent their vacations in the mountains and in sections of the country removed from cities and habitations have gone no farther than they could travel by automobile or trains. There is, however, developing an increasing tendency toward travel to the remote places by packtrain and on foot, and there is every reason to believe that the numbers who will strike out beyond the ends of the highways and away from the railroads will increase at a rapid rate in the near future.

In this article an attempt will be made to give information concerning first aid which a party would want to know if its members were planning their first trip over trails leading away from all sources of supplies and assistance of any kind whatsoever.

FIRST-AID SUGGESTIONS

No matter how careful an individual or party may be, accidents will happen and the problem of deciding on what first-aid equipment to

*Sanitary Engineer, U. S. Public Health Service

take along is always perplexing. The United States Public Health Service* has recommended a kit containing the following articles:

2 gauze bandages, 2½ inches wide.
2 cotton bandages, 3 inches wide.
1 roll adhesive plaster, 1 inch wide.
1 dozen safety pins.
1 ounce absorbent cotton.
1 yard plain sterile gauze.
1 ounce tincture iodine.
1 dozen compound cathartic pills.
2 ounces bicarbonate of soda.
1 drachm permanganate of potash.
4 ounces castor oil.
1 clinical thermometer.
1 hot-water bag.

In commenting on the use of first-aid equipment and relieving pain and giving relief for minor accidents or injuries, the bulletin referred to gives some excellent advice:

"In case of sudden illness, see that the patient is put to bed, and if the condition appears serious, send for a doctor at once. Pains can often be greatly relieved by very hot applications. In some cases, however, especially when fever is present, ice-cold applications may be more serviceable. Headache may be relieved by cloths wrung out of cold water and frequently changed.

"Pain in the abdomen is often the result of constipation, and this condition should, therefore, be treated. On the other hand, colicky pains often accompany diarrhea. In all cases of diarrhea it is imperative to stop all food at once and give the patient only plenty of water to drink. A twenty-four-hour fast will usually effect a cure. If the patient is feverish, and especially if the fever continues for more than a day, be sure to call a doctor. Meantime it will be well to keep the patient to himself, for the disease may be catching. If he is hungry feed him nothing but milk until the doctor comes."

Small Cuts.—"Bleeding is beneficial, as it serves to wash out bacteria. After hemorrhage has ceased, paint the wound and the surrounding skin for a considerable distance with a light coat of tincture of iodine. Apply a dressing of sterile gauze or freshly laundered muslin and hold in place with a bandage. A sterile gauze bandage makes a convenient dressing for small injuries around the fingers or hand. A piece of the bandage may be folded into a compress, or the bandage alone simply wrapped around the finger, care being exercised so that the part which goes next to the wound is not touched by the operator."

Large Cuts.—"These are apt to bleed freely, but unless an artery

* *The Safe Vacation, with first aid to the injured.* Keep Well Series No. 5. Government Printing Office, Washington, D. C.

or large vein has been opened, the hemorrhage will in most cases cease of itself."

First-Aid Treatment.—"Send for a doctor. If the blood comes in spurts, apply a tourniquet. While waiting for the physician make the patient comfortable and see that the clothing does not come in contact with the wound. If the patient has to be transported before medical help can be obtained, cover the wound with a number of thicknesses of sterile gauze, boiled dry muslin, or similar material. If these are unobtainable, use some freshly laundered article, such as a clean handkerchief, towel, or napkin. Hold the dressings in place with a bandage."

WOUNDS CAUSED BY FISHHOOKS

"When the barbed end of a fishhook has entered the flesh, do not attempt to remove it by pulling it directly out. Such a procedure will cause great laceration and tearing of tissues. The better plan is to depress the shank of the hook, push the point forward and onward in an upward direction, and bring it out on the surface at another point. The barbed end is then cut off with a wire-cutter or file. The barbed end having been removed, the hook can be extracted by pulling on the shank without damage to the tissues."

SHOTGUN, RIFLE, AND PISTOL WOUNDS

"Bullets make small, deep wounds which are generally classified as punctured wounds. The discharge of a shotgun or of a rifle or pistol at close range may cause a deep, lacerated wound."

First-aid Treatment.—"Send for a doctor. If sterile gauze is available, cover the wound with that. Remember that there may be two wounds, one where the bullet went in, the other where it came out. If only one opening is seen, search for the other on the opposite side of the limb or body.

"There is always danger of tetanus, or lockjaw, resulting from a gunshot wound. Antitetanus serum should be administered by the physician as early as possible."

SPLINTERS

"Small splinters may be removed from the flesh by means of a needle which has been passed once or twice through a flame and then cooled. Larger splinters may be extracted by passing a knife-blade

several times through a flame, cooling it, inserting the blade under the splinter and grasping the foreign body between the thumb-nail and the knife.

"Bites and stings of mosquitoes and other insects are best treated by applying a few drops of household ammonia water or some bicarbonate of soda.

"In the case of bees, wasps, and yellow-jackets, the sting should be removed before applying the ammonia. If there is much pain, it may be relieved by applying cold cloths or a solution of boric acid.

"In some parts of the country 'jiggers' (also called 'chiggers' and 'red bugs') are the frequent cause of an annoying, very itching skin eruption. The insect bores its way into the skin, and it is therefore necessary to dig the insect out with a needle which has previously been sterilized by passing it through a flame. After exposure to jiggers the body should be well lathered and washed. This often prevents further trouble."

SNAKE-BITE

"The bite is usually on the lower part of the limb, and a band made of a handkerchief, necktie, or similar article should be instantly applied a few inches above the wound, between it and the heart, and tightly twisted with a stick to shut off the circulation to the part and prevent the poison from being carried into the system by the circulating blood. The bites of most venomous serpents consist of but two punctures. These small wounds should be freely incised with a knife and then sucked. There is no danger in sucking the wound if there are no cracks or sores in the mouth or on the tongue. After the wound has been sucked it should be cauterized. This is done by applying carbolic acid or nitric acid on the end of a stick, such as a match-stick or toothpick. Most of these injuries happen in the wilds, where such chemicals cannot be obtained. Cauterization may then be performed by heating a nail, a knife-blade, or some other metallic object, such as a suspender buckle, in a fire and freely burning all parts of the wound. On hunting trips a cartridge may be torn open and a little gunpowder poured on the wound and then ignited with a match. Permanganate of potash has been highly recommended, and is used by injecting a one-per-cent solution into the wound and also into the surrounding tissues by means of a hypodermic syringe. The crystals of permanganate of potash may be rubbed into the wound.

"After the wound has been sucked and cauterized so as to extract and destroy as much of the poison as possible, the tourniquet may be loosened. It should be allowed to remain loose for one minute and then tighten up again. Wait twenty minutes, and if no alarming symptoms develop it is again released, and this time allowed to remain loose for two minutes, after which it is tightened. Another period of twenty minutes is allowed to elapse, and on this occasion the tourniquet is left off for three minutes. This procedure is continued for several hours, gradually increasing the time the tourniquet is off, and is known as using the intermittent tourniquet, the object being to allow only small quantities of the poison to get into the system at one time.

"If there are signs of great weakness, some stimulant should be given. Whisky has been recommended; but instead of whisky it is better to give aromatic spirits of ammonia, one-half teaspoonful in water every hour, and half a cupful of very strong coffee every two hours.

"External heat is sometimes useful. A compress wet with boric-acid solution should be applied to the wound after the cauterization.

"Of recent years serums have been produced which are very effective in certain kinds of snake-bites, but they are rarely obtainable when most needed."

SUNBURN

"Sunburn is a red and painful condition of the skin due to exposure of the surface of the body to the rays of the sun."

Treatment.—"Make a lotion as follows: Take one-half pint of hot water and stir into it a level tablespoonful of boric-acid powder; then add twenty drops of carbolic acid, and shake well. The solution should be dabbed on the inflamed skin with a small piece of cotton or sprayed on with an atomizer. It should not be rubbed into the skin. It can be applied every half-hour, if necessary. If no medicine is available, cold compresses will give relief to badly burned areas. When blisters form do not open them, for that only increases the pain and discomfort. After a time a new layer of skin is formed and the blisters break of themselves."

BRUISES

Treatment.—"If the bruise is slight, no treatment is required. If more severe, cold-water compress should be applied. To make a

cold-water compress take from six to ten folds of old muslin, linen, or such material (a couple of thicknesses of Turkish toweling makes an excellent compress). The dressing should be large enough to cover the injured surface and extend a couple of inches beyond, and should be thick enough to retain the moisture for some time. It is wrung out in cold water and then laid on the seat of the injury. Some covering will be required to prevent the dressing from becoming dry, and also to protect the clothing or bed. The most available material for this purpose is oiled paper. In an emergency an old piece of oilcloth or any flexible waterproof material will do very well. This is put outside of the compress and the whole held in place by a bandage of some sort. The compress may be continued for three or four days, after which rubbing the injured part twice a day with a mixture of equal parts of alcohol and water or with witch hazel will help to take out the soreness."

POISON-IVY AND POISON-OAK

"Contact of the skin with poison-ivy causes in many people a very annoying inflammation of the skin. The vine is of the climbing variety, with three pointed leaves on each stem. A few hours or about a day after the skin is exposed to the poison of this plant a red rash appears, with more or less swelling and itching; small blisters appear, filled with serum, even becoming quite large. When they burst there is considerable weeping from the surface. Later the condition may go on to a formation of pus. The hands and face, being the most exposed parts of the body, and the feet and ankles of those who go barefooted, are usually first affected. If the inflammation is very severe, there may be some incidental disturbance, such as fever, headache, and general feeling of malaise."

Treatment.—"A thorough washing of the hands with soap and water immediately after touching poison-ivy, or on returning from a walk where poison-ivy was encountered, is often of considerable service in preventing the usual inflammation of the skin. All exposed parts should be well lathered and washed; then some of the lather should be allowed to dry on the skin. If this treatment does not prevent the inflammation, bathing with salt water may be employed to relieve the irritation. Sea-water is to be preferred. Another application is made by dissolving one teaspoonful of boric acid in a glass of hot water, applying the solution when cool. Bicarbonate of

soda made into a very thin paste with water is also of service in these cases.

"Every one or two days the affected parts should be bathed with warm water, carefully dried without rubbing, and the boric-acid treatment resumed."

ANTITYPHOID VACCINATION

"Experience has shown that a large proportion of cases of typhoid fever are contracted during the summer vacation. It is a wise plan, therefore, to guard against infection with this disease by antityphoid vaccination. This is a simple procedure and has proved of great value. Three doses are injected under the skin of the arm at intervals of about one week. After each dose there may be slight swelling and tenderness. Sometimes there is a little headache and fever lasting about twenty-four hours. This vaccination affords protection which lasts from one to four years, sometimes longer. Ask your doctor about it."

COLONEL HARRY COUPLAND BENSON, U. S. A.
1857 – 1924
Superintendent of Yosemite National Park, 1905-1908

UNIV. OF MICH.

COLONEL BENSON

By Francis P. Farquhar

COLONEL HARRY COUPLAND BENSON, U. S. A., retired, died at Letterman General Hospital, Presidio of San Francisco, on September 21, 1924, after an illness of several months. Until the end his thoughts constantly reverted to the mountains, and especially to Yosemite, which was the very center of his patriotic devotion.

Colonel Benson was first and always a soldier. He served with distinction in the Southwestern Campaign of 1885 and 1886 against Geronimo and the Apaches; he performed valuable services in the Spanish War and in the Philippines; and was called from retirement to serve in the World War. To these campaigns he brought the qualifications of a skillful officer, thoroughly trained in his profession; to which were added a keen mind, an energetic spirit, and a sense of duty that knew no compromise.

In his first campaigns in the Southwest he distinguished himself by his readiness to undertake the most trying duties, involving extraordinary fatigue, privations, and danger. A ride of ninety miles in nineteen hours was commented upon in General Field Orders. Throughout his life Benson never spared himself in the performance of his duty.

Before beginning his military education he attended Kenyon College, Ohio, where his father, the Reverend Edward C. Benson, was Professor of Latin. He was graduated with the degree of A.B. in 1877, and ten years later the college conferred upon him the degree of A.M. He was a member of Phi Beta Kappa and of the Psi Upsilon fraternity. He entered the United States Military Academy in 1878, and was graduated June 13, 1882, number seven in a class of thirty-seven members. First appointed to the Artillery, he was transferred to the Cavalry in 1884, and remained a cavalry officer throughout his career.

With this preparation of scholarship, professional training, and military experience, Benson was well equipped for a public service in which he attained a position of distinguished leadership. Following a precedent established in Yellowstone National Park, the War

Department was called upon in 1891 by the Secretary of the Interior for assistance in the protection and administration of the Sequoia and Yosemite national parks, established by act of Congress October 1, 1890. In the early days of the national parks it took more than ordinary energy, enthusiasm, and ability to protect them from depredations and misuse. Moreover, it took courage to face the hostility of men, often powerful and influential, whose selfish interests were thwarted by the withdrawal of the park lands from exploitation. If it had not been for the timely protection afforded by the United States Army our legacy would have come to us seriously impaired. Many officers and men contributed to this valuable service, but Colonel Benson stands pre-eminent among them, not alone because of the long period of his activity in the national parks, but because he also brought to his task a prophetic vision. For more than thirty years he maintained his interest in the parks, and in later days he beheld the realization of many aspirations.

Benson's connection with the national parks began in 1891. He was then First Lieutenant in the Fourth Cavalry, and served in that year and again in 1892 with Captain Joseph H. Dorst in Sequoia National Park. Captain Dorst's report for 1892 as acting-superintendent makes frequent mention of Lieutenant Benson's activities. The most important duty that devolved upon the troops was that of preventing the trespass of sheep and cattle. Until the establishment of the national parks in California in 1890 the range had been considered by the sheepmen and cattlemen as absolutely their own, although they paid no fees and held no titles, and they were loath to recognize the right of the Government to interfere with their activities. The troops were charged with the task of enforcing the regulations against trespass laid down by the Secretary of the Interior. At first the herders had all the advantage of knowing the territory; they could enter the park at remote corners and keep cover in obscure valleys off the usual lines of travel. But the troops soon learned the game and, under the alert leadership of energetic young officers, made trespassing decidedly unprofitable. There was no penalty provided by law for violating the regulation, but Benson and his colleagues devised an effective deterrent. When trespassing sheepherders were captured, the sheep were scattered beyond the boundary on one side of the park and the herders ejected on the opposite side, often several days' journey away.

With such an initiation, Lieutenant Benson was well prepared to begin his long and useful career in Yosemite National Park, where he was assigned to duty with Troop K of the Fourth Cavalry in 1895. The extent and value of Benson's services in Yosemite during the years 1895 to 1897 are evidenced by special mention in the reports of his superior officers who acted as superintendents.

Lieutenant N. F. McClure, Fifth Cavalry, had prepared a map of the park in 1894, and had continued with additions and corrections in 1895. In the latter year he was assisted by Lieutenant Benson. In 1896 Lieutenant Benson continued the map work, assisted by Mr. William F. Breeze, and the result was an excellent map published in 1896, a copy of which is attached to the superintendent's report of 1897. Benson also compiled a large-scale map, showing in colors all patented lands within the boundaries of the park. "This map," says Captain Rodgers, "has been of great value in passing upon the many questions of ownership that are constantly coming up, and it cannot fail to be of inestimable service to any new officer coming here as superintendent."

Benson attained the rank of Captain in November, 1897, and in the season of 1898 he would have been superintendent of Yosemite National Park if it had not been for the Spanish War, but with the outbreak of war all regular troops were assigned to military duties.

This ended the first period of Benson's association with the national parks. He served in the Spanish War, with the rank of Major, as inspector-general in the volunteers, and for several months was a collector of customs in Cuba.

During the summer of 1899 Captain Benson was a member of a commission appointed by Congress to investigate the roads of Yosemite National Park. With the other members of the commission, Colonel Samuel Mather Mansfield, Corps of Engineers, and J. L. Maude, of the California State Department of Highways, he rendered a comprehensive and useful report dated December 4, 1899. Following this assignment he went to the Philippines with the Fourth Cavalry and remained there for over a year.

In 1905 Benson returned to Yosemite, this time as acting-superintendent. He found things in a bad way, due to the laxity of enforcement of regulations since 1897. During this interval there had been a succession of officers acting as superintendents, no one of

whom had any previous experience in duties of this character and not one of whom ever remained for more than one year in charge of the park. Benson took up his duties with customary vigor and with the advantage of thorough familiarity with the problems before him. He at once restored the policies inaugurated under Captain Rodgers in 1895, establishing outposts and pursuing trespassing sheepmen relentlessly. Thereafter, so long as Benson was in the park, the sheepmen rarely trespassed.

He attained the rank of Major in October, 1905, and was assigned successively to the Thirteenth, Fourteenth, and Fifth Cavalry, becoming Lieutenant-Colonel in the Fifth in 1911. His administration of Yosemite was marked by progress in many ways. No superintendent of any park at that time had such a thorough understanding of what the national parks were for or what measures were needed for their protection and development. Many of his recommendations, receiving little recognition at the time, are now cardinal principles of national-park policy.

While too far ahead of the tide of public interest to gain all that he sought, Major Benson did succeed during his administration in bringing about many improvements in the park. During his second year as acting-superintendent Yosemite Valley, which had been managed by a state commission since 1864, was receded to the Federal Government and became part of the national park, and Benson moved the army headquarters from Wawona to the valley. He repaired trails and constructed many new ones, particularly in the section of the park north of Tuolumne River, which was before that very difficult of access.

These are but a few examples of the valuable services rendered by Major Benson during his four years of administration in Yosemite National Park. The continuity of policy under one officer was in itself a notable contribution to the "national-park idea," and was an important step toward the establishment of the National Park Service that took place some ten years later.

Benson's conspicuous success in upholding the rights of the people of the United States in their parks against trespassers and poachers caused him to be selected to act as superintendent of Yellowstone National Park in 1909. Here for two seasons he devoted himself to the same principles that he had so well established in Yosemite. His success here was not so marked, however, as he was not long enough

in command to enable him to overcome antagonisms arising from those who resisted his uncompromising efforts to maintain the laws and regulations without fear or favor. Benson was never popular with those whose special privileges he curtailed or whose fancied immunities he declined to recognize.

With the close of his tour of duty in Yellowstone in October, 1910, Benson's official connection with the national parks came to an end, but not so his interest. Yosemite above all other places always called him, and for a number of years he spent his vacations in the park.

From the fall of 1910 until the summer of 1912 Benson was stationed at Schofield Barracks, Hawaii, and then went to the Philippines as Chief of Staff of the Philippine Department, where he remained until October, 1914. He became Colonel of Cavalry on September 27, 1914. With impaired health, he was compelled to ask for retirement, which was granted December 8, 1915, after thirty-seven years of service. Recalled during the World War, he served as Department Adjutant of the Western Department from August, 1917, to April, 1919.

Harry Coupland Benson was born at Gambier, Ohio, December 8, 1857. He married Mary Breeze, of San Francisco, who survives him. They had one child, Lieutenant Thomas Mardenbro Benson, U.S.A., who served in France in the World War, and whose death, in 1922, was in consequence of illness contracted in the field. During the latter part of his life, Colonel Benson lived in Burlingame, where he took an active interest in out-of-door sports.

A comrade at West Point and a lifelong friend, General Benjamin Alvord, pays him this tribute:

> "A typical officer of the 'old' Army, Benson was imbued with its spirit and ideals. High-minded, courageous, honest, intolerant perhaps of what he considered departures from its code, he was frank and outspoken, while trying always to be just and considerate. It was a passion with him to play the game, whether of life, golf, or what not, according to the rules, and it must be admitted that he usually knew the rules better than most people. In his personal relations Benson was genial, kindly and generous. Alert of mind, interested in people and things, and a student of both nature and books, he was an interesting and delightful companion."

Benson Lake, one of the most beautiful of Sierran lakes, fittingly preserves his name in the heart of Yosemite National Park.

GEORGE ROBERT DAVIS*

GEORGE ROBERT DAVIS was born in Riverside, California, on October 17, 1877. At the age of twenty, he joined the United States Geological Survey in the capacity of traverseman, at Elsinore, California. In 1912, he was promoted to the position of topographic engineer in charge of the Pacific Division of the Survey, which includes the states of Washington, Oregon, California, Utah, and Arizona, and the Territory of Hawaii, a position which he held until his death, at San Francisco, California, on March 31, 1922.

He is survived by his wife, Mrs. Adelena Marie Fontaine Davis, and a daughter.

During the years of his service with the Government, Mr. Davis surveyed much unexplored territory in the western states and was recognized as an expert topographic engineer. Included in his work of topographic surveying was the mapping of the Mount Whitney, Mount Goddard, Bakersfield, and McKittrick quadrangles, in California, as well as mapping in the Yosemite National Park and Kings River Cañon, California, in Mount Rainier National Park, Washington, in the Territory of Hawaii, and many other areas. Mr. Davis has thus indelibly imprinted his lifework on some thirty government maps portraying the highest type of topographic mapping. In his death geographic science has sustained a distinct loss.

Mr. Davis was a Fellow of the American Geographical Society, a member of the National Geographic Society, the Sierra Club of San Francisco, the City Club of Washington, the Sutter Club of California, and of Evergreen Lodge, F. and A. M., of Riverside, California. In 1915, he was a government delegate to the International Engineering Congress in San Francisco, and, in 1920, a delegate to the Pan-Pacific Scientific Congress in Honolulu, Hawaii.

Mr. Davis was elected an Associate Member of the American Society of Civil Engineers on April 3, 1907.

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* From the *Transactions of the American Society of Civil Engineers.*

GEORGE R. DAVIS
1877 – 1922
Topographic Engineer, U. S. Geological Survey

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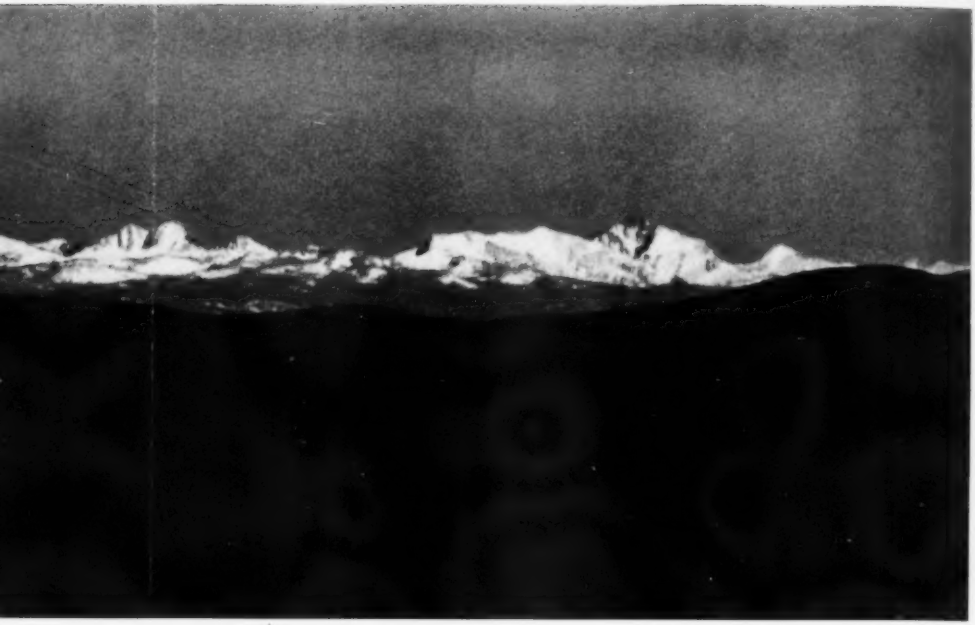
(c) (d)

PLATE LX.



in (b) Mount Haeckel (c) Mount McGee (d) Mount Goddard
E EVOLUTION GROUP FROM MOUNT HAMILTON
Mount Darwin, approximately, one hundred and sixty-five miles
Photograph by William H. Wright

b) (c) (d) (e)

PLATE LXI.

Mount Gabb (c) Bear Creek Spire (d) Mount Hilgard (e) Seven Gables
OUNT ABBOT GROUP FROM MOUNT HAMILTON
e to Bear Creek Spire, one hundred and fifty-eight miles
Photograph by William H. Wright

SIERRA CLUB

Founded 1892

402 Mills Building, San Francisco, California

Annual Dues: $4.00 (first year, $5.00)

THE PURPOSES OF THE CLUB ARE:

To explore, enjoy, and render accessible the mountain regions of the Pacific Coast; to publish authentic information concerning them; to enlist the support and co-operation of the people and the Government in preserving the forests and other natural features of the Sierra Nevada.

John Muir, President 1892 to 1914

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EDITORIALS

The Third Mount Everest Expedition

The entire civilized world is interested in the valiant attempts of the small party of lion-hearted British climbers who have been endeavoring to reach the summit of Mount Everest. The 1924 expedition came very near reaching the goal, and there is even some possibility that the two climbers who perished actually set foot on the summit. The expedition started out more auspiciously than on any previous occasion, profiting by the experiences of the former attempts. The base camp was reached earlier than on previous occasions, and the climbers were engaged in establishing camps upon the slopes of the mountain when they were driven back to lower elevations by the unusually low temperature which prevailed for several days. The extreme cold sapped the vitality, energy, and spirit of the entire party, especially the native porters. It looked for a time as though the attempt to reach the summit would be an absolute failure. Their spirits quickly revived with more favorable temperature, and they again proceeded with the establishment of their base camps. They succeeded in establishing a high camp at an elevation of nearly 27,000 feet, an accomplishment which had not been attained on previous expeditions. Without oxygen, two members of the party, Norton and Somervell, climbed to an elevation of 28,128 feet, but had to turn back at about 2:30 P.M., realizing that they could not reach the summit in time to return to the high camp before dark. Another attempt was made immediately following by Mallory, who had been on all three expeditions and proved himself to be a prince of mountaineers, and Irvine, a much younger man just out of college, this being his first Everest experience. They both used oxygen, and were last seen about 12:50 P.M. on June 8th at the base of the final pyramid which culminates in the summit. According to their own advance calculation, they should have reached the point where they were last seen about 8 A.M., but were evidently delayed by the stormy conditions prevailing on the upper slopes of the mountain, where they were camped for the night at the high base camp. They were clearly seen silhouetted against a field of snow which they were crossing, but failed to return. The ascent to the summit from the point where they were last seen was comparatively easy as far as the topography of the mountain was concerned. Their failure to return must be explained either by a fall or their inability to get back to the high base camp by dark, in which event they would inevitably have perished from the extreme cold. The remaining members of the party, particularly those who attempted the final climb, are quite confident that "success will crown the effort to ascend the 800 feet of the mountain which remains to be climbed," and the general opinion seems to be that the summit can be safely reached with or without oxygen apparatus. Of course, everything will depend upon favorable weather conditions. The climbers who had been on previous expeditions seemed to show additional en-

durance as a result of their previous experiences, and one member of the party made two ascents between the 25,000- and 27,000-foot camps in the same week.

Six of the porters, given the title of "tigers" as a mark of merit, were able to carry loads up to the 27,000-foot camp. The endurance of some of the women who acted as porters would be incomprehensible to women of this country. An elderly woman with gray hair actually danced a *pas seul*, although she had just carried a forty-pound load from Camp I (17,800 feet) up to Camp II (19,800 feet) over rough and difficult ground. Another woman insisted on carrying her lusty baby all the way on the top of her already full load, and came into camp fresh and smiling and ready to go on packing the next day. All of the porters slept out in zero weather without tents and with few blankets, except at high camps on the mountain.

An interesting discovery was the finding of fossils at a height of over 25,000 feet, the upper slopes of Everest being composed of gneiss and altered limestone, with a small amount of intruded rock of a granite type.

Another attempt will be made on Everest by the surviving indomitable climbers of 1926, and they hope to establish a final base camp at an elevation of 27,300, just below the final pyramid which forms the extreme summit of the mountain.

Many will wonder what is to be gained through the endurance of such hardships, confronted always with the possibility of loss of life. It is difficult to explain to those who are not mountaineers just what it is that fires the blood and inspires the climber to seek to scale lofty summits. Mallory himself has answered this question. In the fall of 1923 he lectured in America on the previous attempts to climb Mount Everest, and he opened his lecture by saying:

> "Whenever I give this lecture there is always one question that someone is perfectly sure to ask me at the end, and I want to answer it before I begin. Someone is perfectly sure to ask me what is the use of climbing Mt. Everest. Is there anything worth while up there if you get there? I want to answer that now. There is not any use in climbing Mt. Everest. There is nothing to be found up there; there are no precious stones; there are no deposits of gold, and if you think that there is nothing worth while in the world except something substantial or tangible, some gain in work or wages, why you won't understand me. If you don't know the thrill of wanting to do something mighty hard; if you don't know the thrill of wanting to do something that no mortal man ever did before, and standing on the roof of the world, I have nothing to say to you."

George Mallory and his companion, Andrew Irvine, were both fascinating men, full of charm, clean, athletic, modest, and inspiring others with their whole-souled enthusiasm. The final pyramid which crowns the highest mountain in the world is a fitting monument for these brave mountaineers.

W. E. C.

REPORTS OF COMMITTEES

TREASURER'S REPORT

To the Directors of the Sierra Club:

The following report on the finances of the Sierra Club for the year ending December 31, 1924, is respectfully submitted. JOSEPH LE CONTE, Treasurer

GENERAL FUND

Received:		
Dues from 333 new members, at $5.00	$1,665.00	
Dues from 1422 regular members, at $4.00	5,687.00	
Dues for former years . 140, at $4.00	559.00	
20, at $3.00	60.00	
Dues paid in advance . . 5, at $4.00	20.00	
Dues paid by U. S. Forest and National Parks officers, 9, at $4.00 for two years	36.00	
Total dues received		$ 8,027.00
Interest on savings accounts	$ 132.07	
Interest on bonds (portion from Permanent Fund)	42.50	
Sale of pins	42.25	
Sale of BULLETINS	110.20	
Advertising in BULLETIN	249.38	
Advertising in local walks schedule	67.49	
Sub-lease of portion of office	160.00	
Miscellaneous small receipts	21.99	
Total miscellaneous receipts		825.88
Total received		$ 8,852.88
Less checks returned unpaid		13.00
		$ 8,839.88
Disbursed:		
General Administration:		
Salary of Assistant Secretary	$1,200.00	
Extra clerical help	139.20	
Office rent, No. 402 Mills Building	900.00	
Office expenses: postage, stationery, supplies	619.22	
Telephone and telegraph	126.97	
Circular letters and other printing	308.50	
Election expenses	34.50	
Directors' traveling expenses	84.50	
Sundry general expenses	23.90	
Purchase of new addressograph	224.05	
		$ 3,660.84

Bulletin:		
Printing	$2,228.70	
Cuts and photographs	259.28	
Distribution	216.82	
Cost of securing advertisements	24.90	
		$ 2,729.70
Local Walks:		
Printing of four schedules	$ 320.00	
Stamps and envelopes for same	84.25	
Additional printing and other expenses	49.25	
	$ 453.50	
Less amount paid by San Francisco Bay Chapter	80.69	
		372.81
Chapters:		
Southern California Chapter	$ 980.00	
San Francisco Bay Chapter	314.00	
		1,294.00
Mountain Lodges:		
Le Conte Memorial Lodge	$ 105.00	
Purchase of Tuolumne Soda Springs certificates	100.00	
		205.00
Miscellaneous:		
Taxes	$ 84.97	
Library	105.22	
Purchase of club pins	51.87	
Dues to other organizations	31.00	
Contribution to Council of National Parks	25.00	
Contribution toward purchase of Redwood Meadows	50.00	
Expenses of a delegate to Washington	250.00	
		598.06
Total disbursed		$ 8,860.41

Summary:	
Net amount received	$ 8,839.88
Balance January 1, 1924	4,123.77
Total	$12,963.65
Total disbursed	8,860.41
	$ 4,103.24
On hand:	
First National Bank of San Francisco	$ 688.15
American Bank of San Francisco	2,504.32
Mercantile Trust Company of California	885.77
Cash in Assistant Secretary's drawer	25.00
	$ 4,103.24

Received: PERMANENT FUND

Four new life memberships	$ 200.00
Interest on Savings Bank Account	59.01
Part interest on Liberty Bonds	42.50
Total received	$ 301.51
Balance on hand January 1, 1924	3,321.70
	$ 3,623.21

On hand:

Liberty Bond, 3d, 4¼ per cent, par value	$ 1,000.00
Liberty Bond, 4th, 4¼ per cent, par value	1,000.00
In American Bank, San Francisco	1,623.21
Total	$ 3,623.21

On hand: ROBERT S. GILLETTE FUND

U. S. Treasury Note, Series B, 4¼ per cent, par value	$ 1,000.00

On hand: SPECIAL MEMORIAL LODGE FUND

Securities at par value of	$ 4,000.00

Received: MEMORIAL LODGE CURRENT FUND

Interest on Gillette and Special Lodge funds	$ 226.25
Balance on hand January 1, 1924	263.42
Total	$ 489.67

Disbursed:

Part payment of Salary of Shasta Lodge Custodian	150.00
Balance on hand January 1, 1925	$ 339.67

On hand:

Wells Fargo Bank and Union Trust Company, cash	339.67

On hand: NATIONAL PARKS FUND

American National Bank, cash	$ 742.50
(Roosevelt-Sequoia enlargement fund)	

* *
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Secretary's Report—1924

To the Members of the Sierra Club:

During the past year 333 new members joined the club, and 241 were dropped from the list because of death, resignation, and non-payment of dues. The total membership at the beginning of the year 1925 was 2791.

The main activities of the club have been so completely set forth in the printed minutes of the Directors' meetings and other information sent out in the bi-monthly circulars that it would be a repetition to restate these matters here. The club continued its activities in connection with the bill to create the enlarged Sequoia National Park, but unfortunately the bill failed of passage.

Photograph by Fred Herz

Photograph by Lee L. Stopple

MOUNTAIN GOATS (*Oreamnos montanus missoulae*)
Glacier National Park

BIGHORN EWE ON APPEKUNNEY MOUNTAIN

MOUNTAIN GOATS ON MOUNT GRINNELL
Swift Current Trail in the distance
Photographs by Fred Herz

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This measure will be urged as soon as the next Congress convenes. The organization of the San Francisco Bay Chapter is one of the most important events occurring during the past year. This chapter has taken over the conduct of the local walks in the San Francisco Bay region and other matters of a local nature.

The club has taken steps to aid in the passage of a bill in the State Legislature providing for a State Park Commission and state-wide survey of lands suitable for state park purposes.

One of our members, Mr. Geo. F. Schwarz, contributed largely to the purchase of a beautiful grove of redwoods, now known as the McMeekan tract, a few miles south of Crescent City, California. This grove will be named in honor of Hon. Henry S. Graves, former Chief Forester of the National Forest Service.

Respectfully, WM. E. COLBY, Secretary

* *
*

LE CONTE MEMORIAL LODGE—SEASON OF 1924

The season of 1924 in Yosemite Valley was exceptional. As usual, the lodge was open to the public daily for a period of three months, beginning May 1st. Travel into Yosemite was light, due mainly to two causes—the drought and the inconvenience to the public caused by the hoof-and-mouth disease. At times in early summer the valley seemed almost deserted. The attendance at the lodge was correspondingly much reduced.

A number of books was donated to the library and acknowledgment made by the custodian. We have now a small but well-balanced selection of books in keeping with the place. Besides those which are not allowed out of the building, there is a miscellaneous class, including science, philosophy, and fiction, that can under certain restrictions be taken away from the lodge, and this privilege seems to be appreciated among the numerous nearby campers and people at Curry's. Even if most of the books so taken out are novels, we are filling a small want, perhaps at times exerting an influence that sometimes leads to other things. There is still shelf-room. Many of us have discarded books. Why not send in a few?

F. C. HOLMAN, Custodian

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SHASTA ALPINE LODGE—SUMMER OF 1924

The custodian of the lodge, J. M. Olberman, opened the season about the first of May, and did not close same until the end of September. The official dates, however, remained as heretofore—June 15th to September 15th.

By reason of the small snowfall of last winter, the amount of snow found at the lodge on the first of May was about equal to that of the first of July of a normal year.

Total number of visitors registered at the lodge was 368, of which approximately 150 reached the summit of Shasta.

The weather at the lodge was somewhat unusual. Early in July the thermometer reached 84 degrees, the highest for the summer. On August 18th occurred a genuine snow and rain storm, the snow falling to a depth of two

inches. Again, on September 19th, came a snow-storm and blizzard, lasting for several nights, followed by a cold snap that froze the water-barrels with a half-inch of ice. On October 5th it snowed all day.

Several good climbers made the ascent during the season, some reaching the summit in four hours from the lodge, and ascents in less than five hours were frequent. The record made by Mr. Norman Clyde, of two hours and forty-three minutes, still stands.

A steel tripod and an eleven-foot steel pole were erected on July 4th at the summit. The pole stood there about two weeks, when it was snapped off by high winds. The flag was carried back to the lodge. The tripod remains intact. The metal box with the Sierra Club record-book can be found under the tripod by all climbers reaching the summit.

The outstanding event of the season on Mount Shasta was the great avalanche, which occurred during September on the east side of the mountain coming from the Kenwakiton, which is popularly known as the Mud Creek Glacier. The newspapers of the state reported a greatly exaggerated account of what really happened. One dispatch reads: "The southeast section of the top of Mount Shasta toppled over late today, the collapse completely obliterating Mud Creek Cañon. Not a trace of the cañon can be seen, the entire topography being changed." This proved to be entirely untrue.

However, a small expedition was sent to the mountain and used the lodge as a base of operations. A fine set of photographs was made of the glacier and cañon, and this album of pictures, which is now at the Sierra Club's San Francisco office, tells a truthful tale of just what happened. This expedition was financed by members of the California Academy of Sciences and the McCloud River Country Club.

RECEIPTS AND DISBURSEMENTS FOR THE SEASON

Subscriptions:		
Sierra Club	$150.00	
Sisson Chamber of Commerce	100.00	
Dunsmuir Chamber of Commerce and Lions Club	50.00	
Redding Chamber of Commerce	50.00	
Weed Chamber of Commerce	50.00	
Yreka Chamber of Commerce	50.00	
Shasta Springs and Shasta Water Company	50.00	
Harry Babcock	25.00	$525.00
Payments:		
Custodian, three months (June 15th-Sept. 15th)	$300.00	
Furniture and sundries	90.75	
Tripod and flag for summit	13.75	
Carrying tripod to summit (7 men divided)	50.00	
Expedition to photograph Mud Creek Glacier (our share)	25.00	
	$479.50	
Balance in The Bank of California, S. F.	45.50	$525.00

Respectfully, M. HALL MCALLISTER,
Chairman, Shasta Alpine Lodge Committee

NOTES AND CORRESPONDENCE

Report of San Francisco Bay Chapter of the Sierra Club for 1924

The second year of the San Francisco Bay Chapter's existence has demonstrated more clearly than ever its ability and willingness to assist the main club by taking over matters of purely local interest. Full supervision of such local activities as the making up of schedules for local walks, dances, swims, and other social functions has been assumed by the chapter, thereby relieving the club of a great deal of this detail work.

We have also been able to take over some of the work of petitioning state senators and congressmen for support of local game-refuge bills and indorsing petitions for the setting aside of certain areas for public parks.

It has long been the aim of the chapter to expand the educational activities of the club, with a view toward stimulating interest in and appreciation of our mountains and national parks and their conservation. With this end in view, our Educational Committee has planned a series of interesting and instructive lectures. The splendid lectures already given have been enthusiastically supported and demonstrate that there is a very general interest in a program of this sort.

Our social affairs for the past year have been very successful, not only from the standpoint of enjoyment furnished, but they have also in most cases netted the chapter a small sum over and above expenses.

Many pleasant week-end trips have been enjoyed so far this year. The Bay region abounds in so many ideal spots for such trips, and the Local Walks Committee has been so diligent in discovering them, that the year is hardly long enough to include them all. Consequently, an early beginning was made with a party on January 17 and 18 in Mill Valley at the lodge kindly put at our disposal by the Alpine Club. Dinner was served to about fifty and the party was augmented Sunday morning by about that many more who joined in the Sunday walk. In February a jolly crowd spent the Saturday and Sunday which included Washington's Birthday at Napa Soda Springs resort, which was opened specially to accommodate our party. The extreme wetness of the weather failed utterly to dampen the enthusiasm of the party, which numbered about sixty. March, April, and May brought pleasant week-end trips to the beautiful Livermore Valley, Congress Springs, and Vallejo Mountain, and many more trips have been planned for the balance of the year, so that we may enjoy to the utmost the pleasures of our all-year-round vacation state.

We were glad to be able to contribute the sum of twenty-five dollars toward the erection of the Tamalpais Conservation Club cabin at Bootjack. The work done by this organization is well worthy of our most energetic support.

The John Muir Cup contributed as a prize to the California Spring Blossom

and Wild Flower Show was awarded to the Tuolumne Grammar School for the best exhibit of California wild flowers.

The Tuesday evening dinners are vying in popularity with the Thursday luncheons, both being very well attended. These informal gatherings are conducive of a splendid spirit of good comradeship and afford an excellent medium for becoming acquainted with new members.

VIOLET POLLOCK, Secretary

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SOUTHERN CALIFORNIA CHAPTER NOTES

SAN JACINTO GAME REFUGE

The peak of San Jacinto Mountain is 10,805 feet in altitude, and the broad summit region is much of it between seven thousand and nine thousand feet, very wild and beautiful, and worthy of being kept untouched forever for the pleasure of the people. Moreover, it is extremely well suited in every way for a deer refuge. Mr. George Law knows the country well, and initiated the plan to establish the protection of this highest area, ten by four miles in extent.

The Southern California Chapter has been working for this end, first through the Federal Government and then last winter through our State Government. This bill (Senate Bill Number 219, introduced by Mr. Kline of San Jacinto) was passed most favorably by both Senate and Assembly, and has now received the signature of Governor Richardson. The end accomplished is that this lovely high country will be kept wild and free, and that deer and other native wild life will have this permanent refuge where every condition is favorable to their safety and welfare.

The patrol work will be done by men of the National Forestry Service, and the Southern California Chapter is ready to provide the necessary signs. The official name of this area is Fish and Game District 4-G, and the descriptive name is Mount San Jacinto State Game Refuge. AURELIA S. HARWOOD

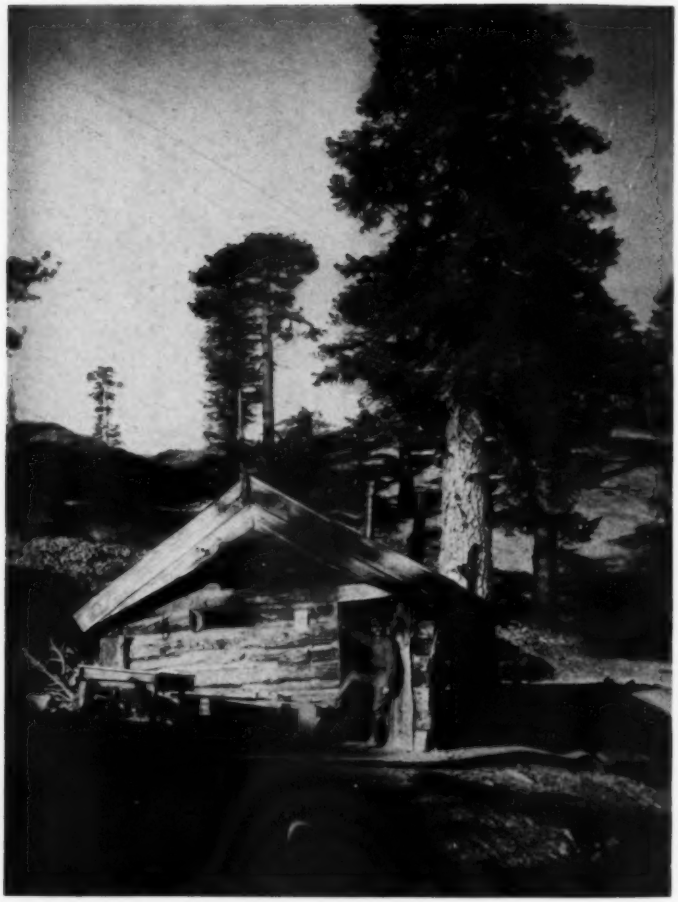
REDWOODS OF MONTEREY COUNTY

Two years ago the Southern California Chapter conceived the idea of preserving the coast redwoods of Monterey County. The matter was taken up at the directors' meeting at that time, and a communication was sent to Mr. Newton Drury, secretary of Save-the-Redwoods League. Mr. Drury during last winter directed a report to be made by the State Forester. This report shows that there are three fine stands of redwoods along the Little and Big Sur rivers. The main grove comprises 130 acres, extending from Sawmill Flat, just above the Big Sur post-office, down the river for about two miles. There are magnificent groves on each side of this river, and, as various streams enter from the sides, there are several fine level camping-places. The coast highway between San Luis Obispo and Monterey has all been surveyed, and a considerable part of the pavement has been laid at the north end and also at the south end. This 130 acres is owned by Mrs. Pfeiffer. She operates a public camp, and will probably establish two more auto camps the coming summer. Her grove is about thirty miles south of Carmel over a road which is rather steep in places but very accessible.

Photograph by Fred Herz

Photograph by Quong Jue

MOUNTAIN SHEEP—BIGHORNS (*Ovis canadensis canadensis*)
Glacier National Park



SIERRA CLUB CABIN ON MOUNT SAN ANTONIO
Photograph by R. L. van Oosting

UNIV. OF MICH.

There is also a grove of about eighty acres of very fine redwoods on the Little Sur, owned by Mrs. Cooper-Hughes. The coast highway will not reach this tract, although a county road passes through one corner.

In the Palo Colorado Cañon most of the good timber has been lumbered off. There is another fine grove on the ranch owned by Mr. Post, and there are good possibilities of a limited number of camps being established here, very accessible to the highway. Some of these trees reach a diameter of about eleven feet, and are of excellent height in proportion.

The coast highway is to be built very close to the ocean most of the distance. The coast is very rugged, and, as the highway winds up into many cañons, this route is destined to become one of the most picturesque of the nation. As this will be the shortest route between the two largest cities of the Pacific Coast, the pleasure and industrial traffic thereon will be great.

The supervisors of Monterey County are anxious to have the state acquire certain of these redwood groves for use as campgrounds; they have stated that the county would insure a care-taker and maintenance. Much has been done to preserve the redwoods of northern California, but so far no groves have been set aside south of San Francisco. This beautiful country lies within one day's ride of Los Angeles. It is advisable that a Sierra Club trip be planned into this section, but in the meantime private parties will find the trip south as far as Post's to be well worth while. While there is no immediate prospect of the owners of these groves selling the timber for lumber, yet we should give careful thought to the matter of getting these properties into the hands of the state.

CHARLES J. FOX

FIRE PREVENTION CONFERENCE

That there might be a thorough understanding of the very extensive work now being carried out by the Federal, State, and County forestry departments, The Conservation Association of Southern California called a Fire Prevention Conference (April 30-May 1) at Alpine Tavern, Mount Lowe. Primarily, this association was formed to protect our watersheds in southern California. Among the organizations which constitute the membership are Associated Chambers of Commerce of the San Fernando Valley and of the San Gabriel Valley, Los Angeles Chamber of Commerce, Angeles Protective Association, Automobile Club of Southern California, American Reforestation Association, California Fruit Growers Exchange, Los Angeles County Farm Bureau, Boy Scouts, California Development Association, Southern California Chapter of the Sierra Club, and others.

Fire prevention was discussed from many viewpoints during the afternoon and evening, including the commercial and recreational value of the mountains to each individual and to the community. Senator Shortridge was present at both sessions, presenting phases of legislative work in an address in the evening.

Mr. Paul G. Redington, District Forester, spoke directly of many plans and changes which were being effected by the Forestry Department, some of which were: The dividing of the Angeles National Forest into two forests, the new one to be known as the San Bernardino; a certain portion of the Santa Barbara

National Forest to be added to the Angeles, making the new boundaries of the latter the Sespe on the west and Lytle Creek on the east; Mr. Bolden, former Supervisor of the Cleveland National Forest, will be Supervisor of the new San Bernardino National Forest, with headquarters in the city of San Bernardino.

About $125,000 will be spent by the Federal Government in making a good automobile road from the Cajon Pass to the new Los Angeles County Recreational Park in Swartout Valley.

It is expected that the first eight miles—from Mount Wilson to Barley Flats—of the proposed new road through the Barley Flats, Chileo country, will be completed this year. The surveys are finished.

A bill was introduced into Congress this last session to appropriate two million dollars for the purpose of breaking up the mountains in southern California into compartments, separated by fire-breaks and roads, with each compartment thoroughly patrolled. One million of this amount is to be raised by the state or county, or from other sources. The bill did not get out of committee, but will be reintroduced at the next session. As for extensive reforestation, Mr. Redington called attention to the fact that at the Board of Fire Review which met in Los Angeles in November of 1924 it was determined that it was of little use to replant, except for experimental purposes, until some extensive system of fire protection and prevention had been worked out and financed with the necessarily large funds.

Mr. Stuart Flintham, County Forester, stated in usual vigorous fashion that the fires could not be prevented so long as people were going into the mountains; hence the mountains must be made fool-proof.

Dr. Bayliss, of Pine Crest, emphasized that we leave our fire-fighting to Mexican laborers, who go to sleep on the fire-line, and stressed the necessity of educating the public to the need for fire protection wherever an organized body presented an opportunity.

Mr. Pratt, State Forester, in reply to a question, advised that a state law make it obligatory that the value of forest cover and need for fire prevention be taught in the public schools.

Stress was laid upon the necessity of obtaining the support of the leading men in each community.

MABELLE MCCALLA STOCKING

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MOUNTAIN CLIMBING NOTES

SIERRA CLUB, 402 Mills Building, San Francisco.

Dear Sirs: As I am a member of the Sierra Club, I wish to inform you that Clyde F. Polk, of San Francisco, and myself climbed Mount Williamson, 14,384 feet, on July 8, 1924. It was an interesting climb as well as a hard one, as we camped the night before at Parkinson Meadow and used that for a base camp. That is on Shepherd Creek; so, consequently, we had to go over the Shepherd Pass before climbing Mount Williamson itself.

We were surprised to find that the peak had not been climbed since 1922. The last three names were Julie Mortimer, Norman Clyde, and Alice Carter, who are all Sierra Club members.

I also took notice of the register, and discovered that there were forty-seven names on top since 1903; our names made it forty-nine.

Hoping that this will be of interest to you. I remain

Very truly yours, F. CLIFFORD HANCHETTE

Independence, California, August 7, 1924.

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MR. WM. E. COLBY, Secretary Sierra Club, Mills Building, San Francisco, Cal.

Visalia, Cal., Nov. 18, 1924

My Dear Mr. Colby: In memory of Mrs. Agnew, on this, our 36th wedding anniversary, I am giving to the Sierra Club her collection of Indian baskets.

I am loaning them to the museum at Yosemite until such time as a museum is constructed at Sequoia National Park, where I hope they may remain until such time in the future as the club may have a safe home for the entire collection in Kings River Cañon.

Yours very truly, J. B. AGNEW

MR. J. B. AGNEW, Visalia, California.

November 21, 1924

Dear Mr. Agnew: I am acknowledging your letter of November 18th, in which you state that you are going to give the Sierra Club Mrs. Agnew's collection of Indian baskets. In behalf of the club I wish to express our appreciation of your very great generosity. I am glad that you are going to follow out my suggestion and loan these to the Yosemite Museum. I would suggest that if you have no objection these baskets be labeled "Ida Agnew Collection of Indian Baskets—Loaned by Sierra Club." This will keep alive the right of the Sierra Club to the baskets, and whenever the club has a safe home for them in the Kings River Cañon we can have them removed.

With kindest personal regards, I remain

Sincerely yours, W. E. COLBY

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NOTES ON MOUNT SHASTA

Mount Shasta's summit is 14,162 feet above the sea; but from about the 12,000-foot level the terrain is covered with perpetual snow and rock and circled by five large glaciers, which are situated by the points of the compass from the summit rocks as follows:

North slope—Hotlum and Bolam Glaciers.
East slope—Wintoon Glacier.
West slope—Whitney Glacier.
South slope—Kenwakiton Glacier.

This last named is popularly known as Mud Creek Glacier, or McCloud Glacier, as it is the source of the McCloud River.

In ordinary years the winter snow is not melted off these ice-fields until about July; then the glaciers commence to melt and discharge their milky-white water into the streams which flow from the mountain.

Whitney and Bolam creeks sink out of sight at about the 4000-foot level, and the only streams which reach the foot of the mountain are Ash and Mud creeks, which form the headwaters of the McCloud River. The former (Ash Creek) also is the water supply of the town of McCloud.

Last winter (1924), by reason of the light snowfall, the glaciers were free of snow by the first of May, and commenced to melt and discharge large streams of water. These meltings being principally along the sides, the water ran under the ice and soon formed channels. These so undermined the foundations that after two months of melting, particularly the Mud Creek Glacier, by the end of June the bodies of ice commenced to break off at the lower ends and falling some hundreds of feet carried great masses of rock-sand and gravel with them.

Observers stated that with sounds like the discharge of cannon masses as large as an ordinary house would break off every two or three minutes, and away they would go down the cañon. The resultant avalanches wrecked the McCloud water-works, carried out the camp of the water-tenders, made a great slope of glacial sand some seven miles long and a mile or more wide, with a depth of from five to thirteen feet, and discolored the McCloud, the Pit, and the Sacramento rivers for miles from their sources.

M. HALL MCALLISTER

FORESTRY NOTES

EDITED BY WALTER MULFORD

FOREST FIRE SUMMARY FOR 1924

The most disastrous fire season which California has experienced in a decade was closed by timely rains in late October, 1924. The critical condition resulted from two successive years of very deficient rainfall. The record for 1924 showed a greater number of fires and a larger total area burned than in 1917, which was a record year and one of the driest seasons ever experienced.

During the season of 1924, there were 2657 forest, brush, and grain fires in California, which burned over an area of 1,085,039 acres—an area larger than the State of Rhode Island. The total loss in natural resources and improved property amounted to $2,402,677. Of the total number of fires, 1932 were within or adjacent to the national forests and 725 were on state or privately owned lands outside of the national forests. An area of 401,221 acres of government lands, equal to approximately two per cent of the total area of the national forests within the state, was burned over. An area of 683,818 acres in state or private ownership was burned over. The United States Forest Service spent $991,743 in fire-suppression during the season. Of this amount, $365,000, or one-third of the total, was expended in fighting fires on privately owned lands within or adjacent to the national forests.

Of the fires which occurred in the national forests, thirty-eight per cent were caused by lightning and sixty-two per cent were due to human carelessness. Of the 1184 man-caused fires, thirty-nine per cent are charged to smokers, nineteen per cent to campers, fourteen per cent to incendiaries, five per cent to brush-burners, six per cent to railroads, six per cent to lumber operations, and eleven per cent to miscellaneous causes.

Outstanding features of the 1924 fire season were: the loss of four lives among fire-fighters employed on the fire-line; the occurrence of more than one hundred large fires, ranging in area from two thousand to more than fifty thousand acres; temporary reservation from public use of ten million acres of national-forest land and restrictions on camping and smoking over an additional area of several million acres; an intensive state-wide educational campaign by the Fire Emergency Organization, sponsored by the Forest Service, the State Board of Forestry, and the California Development Association; and splendid support of the fire-prevention movement by the press, organizations, and public-spirited citizens.

THE RED CROSS ON THE FIRE-LINE

"The San Gabriel fire," said an Army officer recently, "was the nearest thing to war that I ever saw." A report recently received from the Los Angeles Chapter of the American Red Cross emphasizes the truth of this statement. This report shows that on this big fire on the Angeles National Forest there were employed nine Red Cross first-aid workers, six of whom were trained

graduate nurses, and that a total of 4853 treatments were given. These included, among others: burns, 654; cuts, 882; sprains, 119; fractures, 9; overcome by smoke and heat, 70; foot-dressings, 767; eye treatments, 272.

The total expenditure by the Red Cross at this fire was $1366, of which amount nearly $600 was for supplies.

ADMINISTRATION OF ANGELES NATIONAL FOREST

George H. Cecil, for over twenty years a member of the Forest Service, and since 1912 District Forester in charge of the national forests in Oregon and Washington, is being transferred at his request to California, and will be assigned as Forest Supervisor of the Angeles National Forest, with headquarters in Los Angeles, according to announcement by the San Francisco district headquarters of the Forest Service. Mr. Cecil's ability as an organizer and leader, coupled with his long experience in all phases of forest work, is an asset which will be of great help in working out the many problems which confront the administration of such an intensively used national forest as the Angeles. Here, annually, 1,600,000 people seek recreation, and the prosperity and welfare of many times that number are dependent on an adequate and continuous supply of water, much of which comes from streams which head within the watersheds of the Angeles National Forest. The protection of these watersheds from fire is a very real problem, and Mr. Cecil's experience in fire-fighting in the Northwest during the past twelve years will be of value to him in solving the problem now before him.

Mr. Cecil succeeds another veteran of the Forest Service, R. H. Charlton, who is to be transferred to another assignment in the Forest Service. Mr. Charlton has been Supervisor of the Angeles National Forest for nearly twenty years. He was first assigned to take charge of this unit in February, 1905. The recreational and other uses of the forest, during the many years of his administration, have kept pace with the tremendous growth of Los Angeles and its tributary areas. Mr. Charlton has been largely responsible for the development of the organization necessary to meet the increasing business of the forest. Having in charge an area of such value to southern California, he has become one of the best-known forest officers in the state.

CALAVERAS BIG TREE GROVES

Robert Whiteside, the owner of the Calaveras groves of Big Trees, is negotiating for their sale, and a prospective purchaser has indicated his intention of presenting them to the National Government for park purposes or of exchanging them for government timber of equal value. In connection with these negotiations, the U. S. Forest Service made a survey of both groves during the season of 1924.

A twenty-per-cent estimate was made of about seven thousand acres of pine and fir, and the Big Trees were measured on a hundred-per-cent basis. Each tree was numbered and mapped, and a record was made of the taped diameter, the total and merchantable height. There are 150 Big Trees in the North Grove and 950 in the South Grove, with numerous poles and patches of reproduction. The largest tree, the Louis Agassiz, measures thirty feet in diameter

at the base, twenty-four feet in diameter six feet higher, and eighteen feet in diameter nineteen feet from the ground. The tallest tree, a beautiful cinnamon-red shaft topped by a crown of rich green foliage, measured 310 feet in height. Even superlatives fail to describe the South Grove. Several sugar-pines measured 110 inches in diameter at breast-height, with thirteen to fourteen merchantable sixteen-foot logs. One forty-acre subdivision in the South Grove contained a stand of 2,001,000 board feet of sugar-pine, with an additional stand of 389,000 board feet of yellow pine, 167,000 board feet of white fir, and 138,000 board feet of incense cedar. Another forty-acre subdivision contains 4,000,000 board feet of Big Tree, in addition to 1,591,000 board feet of sugar-pine, 1,260,000 board feet of white fir, and 49,000 board feet of incense cedar.

CALIFORNIA FOREST SCHOOL, UNIVERSITY OF CALIFORNIA

On February 29, 1924, the quadrennial labor day of the students of the University of California, a grove of *Sequoia sempervirens* trees was planted on the campus in upper Strawberry Cañon in memory of John A. Britton, for many years a regent and always a staunch friend of the university. The trees were secured from the reforestation nursery of the Union Lumber Company at Fort Bragg. Over two thousand individual trees were planted. Only about half of them survived the protracted drought of 1924; but after the first rains of autumn the blank spaces were replanted with trees from the Forestry Division nursery on the campus. As the trees increase in size, they should become one of the interesting points on the campus.

Professor Walter Mulford, who served as president of the Society of American Foresters during 1924, presided over the annual meeting of the society in December, at Washington, D. C.

Professors Metcalf and Fritz, in co-operation with State Forester M. B. Pratt, have been active in furthering the work of the Contra Costa Hills Fire Protection Committee, which was organized in 1922. After the disastrous Berkeley fire of September, 1923, a systematic plan of protection was drawn up and a tentative budget adopted. Grizzly Peak is now crowned by a substantial and completely equipped lookout tower and watchman's residence. From this tower notification of fires is immediately sent by telephone, and a warning is also given by a large electric siren. Twelve local fire wardens, under the direction of a District Ranger, are constantly on duty during the fire season. Several fires, which might easily have assumed dangerous proportions, were extinguished during the past summer with only nominal losses.

Over thirteen thousand dollars were spent during the past year in furthering the work of the committee. It is hoped that an annual budget of about ten thousand dollars will be provided by the co-operating agencies in order to put the work on a permanent basis.

CALIFORNIA INDIANS NOT "LIGHT-BURNERS"

I have recently read Stephen Powers' most interesting book on the Indians of California.* The author spent three years among the aborigines of California,

* *Contributions to North American Ethnology*, vol. iii, published, 1877, by the U.S.G.S.

and his book goes into minute details, covering every feature of Indian life, including their legends.

In reading this book carefully, one is impressed by the fact that nowhere in it does the author intimate that the natives were in the habit of firing the valleys or mountains, even for the purpose of improving hunting conditions. The author carefully describes the hunting practice of many tribes prior to, and subsequent to, the advent of the "gold-hunters," but nothing is said anywhere to indicate that the Indians periodically burned over the country, as many now contend. The only reference to this matter is in the legend of the Wishinim tribe regarding the origin of fire. According to this legend, the lizard was selected to steal the fire from its source. This the lizard was successful in doing, and then it started for home. At this point the legend reads as follows: "At length he reached the western edge of the Sacramento Valley and he had to be extremely careful in crossing it, lest he should set the country on fire. He was obliged to travel by night to keep the thieves from stealing the fire, and to keep the dry grass from catching fire."

This does not indicate that the real natives of California were "annual firebugs." Mr. Powers was so careful in his descriptions of every phase of Indian life that it is improbable that he would overlook such an important matter as the annual burning of the country, providing it was actually practiced.

Perhaps our present-day advocates of "Piute Forestry" are not so well informed on early-day Indian practice as they would have the public believe.

L. A. BARRETT

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MEMORANDUM ON THE SCHWARZ GIFT

In June, 1924, a member of the Sierra Club, Mr. George Frederick Schwarz, of New York, formerly of the Forestry Service under Gifford Pinchot, became interested in the redwoods of California through Mr. William E. Colby. It was arranged for Mr. Schwarz to see the redwoods in company with Mr. and Mrs. Colby and Mr. Newton B. Drury, the secretary of the Save-the-Redwoods League. Mr. Schwarz's enthusiasm was aroused, and he at once expressed the desire to preserve a grove and dedicate it to the honor of Colonel Henry S. Graves, an outstanding forester of his generation. Mr. Schwarz then appointed a committee, consisting of Mr. William E. Colby, Mr. Duncan McDuffie, Mr. J. C. Sperry, and Mr. Newton B. Drury, to represent him in negotiating for a suitable grove, stating that it was his desire to furnish at least five hundred dollars more than one-half of the purchase price of whatever grove they should find appropriate for the purpose. Negotiations were begun for the purchase of the McMeekan timber, in Del Norte County, a splendid stand of redwoods which was very much desired by grape-stake and railroad-tie makers. The McMeekan tract contains 157 acres and a stand of between eleven and twelve million board feet of redwood, as well as a considerable growth of tan-bark oak. The State Highway passes directly through it, and one of the striking features of this grove is the fact that it is on a slope toward the Pacific Ocean, and thus provides a wealth of charming ocean vistas through the trees.

The Save-the-Redwoods League was able to secure a very reasonable price from Miss Eliza McMeekan, the owner, who agreed to a total purchase price of twenty thousand dollars, the agreement being that one-half was to be paid down and the remaining half paid over a period of ten years at four per cent, plus taxes. Mr. Schwarz immediately gave his check for eight thousand dollars, and the Save-the-Redwoods League added two thousand dollars from its treasury. In January, 1925, Mr. Schwarz gave five thousand dollars more for this purpose. The intention of Mr. Schwarz and the Save-the-Redwoods League to deed this property to the state was then made known to the California State Board of Forestry, and acknowledged on behalf of the state by that body. However, the Forestry Board, not having authority to accept gifts of land on a contingent basis, the deed was drawn up and placed in escrow, and upon the completion of the payments by the Save-the-Redwoods League the McMeekan tract, to be known as the Henry S. Graves Grove, will become a public park, the property of the State of California. It is expected that the payments on this grove will be completed in the near future.

It is proposed to build trails through the Graves park down to the water's-edge under the guidance of a landscape architect, who will keep in mind the finest scenic effects. The Save-the-Redwoods League of Del Norte County has expressed a willingness to aid in the protection of this grove.

NEWTON B. DRURY

BOOK REVIEWS

Animal Life in the Yosemite*

At their first meeting after the appearance of this notable book the Directors of the Sierra Club passed a vote of appreciation and congratulation to the authors. It was felt by all present that the completion of this work was an event of unusual scientific interest and importance. The natural history survey upon which Messrs. Grinnell and Storer based their work was begun by them in 1914 and continued seasonally for six years. From the very beginning the Sierra Club expressed its keen interest in the enterprise, even offering to co-operate in providing funds for publication if this should be necessary, which has not proved the case. These facts are mentioned here only to indicate how closely this book touches the primary interests of the Sierra Club.

A distinguishing feature of uncommon attractiveness consists of twelve full-page colored plates by Allan Brooks, whose skill in depicting wild creatures in their natural surrounding verges on wizardry. While more than a hundred half-tones, figures, and life-zone maps comprise the additional illustrations of the book, it is the colored plates that supply marked artistic distinction to the descriptive matter. There is, for instance, the frontispiece plate of the Sierra Nevada Rosy Finch in his alpine setting—a veritable symphony in color. It is a hopeless task to give in a brief review an adequate account of a book so rich and varied in content. The size of the task essayed by the authors may be indicated by saying that they have endeavored to give an account of all the animal life encountered in a long, narrow area, eighteen by ninety miles, extending from the bottom of the San Joaquin Valley across the Sierra Nevada to the middle of Mono Lake. The survey is, in short, a cross-section of the animal life of Yosemite National Park, with all its variations in life-zones, from the near-tropical to the arctic-alpine. While the authors recorded and described only those animals which they actually took, the list is surprisingly rich and varied, for no less than three hundred and sixty-two kinds of animals were taken. Among them are ninety-seven mammals, two hundred and thirty-one birds, twenty-two snakes and lizards, twelve frogs, toads, and salamanders.

It goes without saying that this book is without a rival in the field of which it treats. The enjoyment of a camping trip into the Yosemite Valley, or into any part of the Sierra Nevada, is sure to be enhanced enormously if this book is part of the camp equipment. Take, for instance, the plates. In one of them the seven kinds of chipmunks found in the Yosemite region display their variously striped coats in all their natural colors. In another, Allan Brooks has furnished charming profile portraits of a dozen native sparrows, making it easy for the observer to identify them at sight. Still other groups comprise the

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*_Animal Life in the Yosemite._ By Joseph Grinnell and Tracy I. Storer. University of California Press, Berkeley, California. 1924. 752 pages. 60 plates (12 colored); 2 maps. Cloth. Price, $7.50. Carriage 50 cents extra.

woodpeckers, the purple finches, the warblers, and a plate of some small birds of the Yosemite forests.

To the members of an organization that aims to protect national parks, and particularly the forests and other natural features of the Sierra Nevada, the authors' discussion under the heading "Interrelations of Living Things" will be found important and suggestive. "Forests," to quote from this section, "depend for their maintenance, in the condition in which we observe them in this age of the world, upon the activities, severally and combined, of the animals which inhabit them." But, as the writers justly point out, the animals in turn depend upon the preservation of the forests in their natural state. Dead and fallen timber, even decaying logs, constitute the home of species of animals whose diminution or disappearance would be felt detrimentally by the forests. Hence both science and esthetics agree in demanding that the Yosemite National Park, or any park, shall be left entirely in its natural state. The dead trees, for instance, serve as breeding-places for the great host of woodpeckers who save the living trees from periodic onslaughts of destructive insects. The needless destruction of undergrowth would similarly entail hardship for other natural protectors of the forests. In short, the book is, among other things, a magnificent vindication of our governmental policy to preserve our national parks in their natural condition. This is a great book; reliable in its science, rich in absorbing facts, entertaining in its accounts of animal behavior, and overflowing with the faithfully portrayed charm and allurement of virgin Sierran wildernesses.

WILLIAM FREDERIC BADÈ

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"LIFE AND LETTERS OF JOHN MUIR"*

John Muir meant much to the Sierra Club. He had a large share in its birth. While he lived he was its leader and the source of power which vitalized its work. And today, through his inspired books, he fires us to carry on the great work which he started so well. It is little wonder that we of the Sierra Club awaited the appearance of his *Life and Letters* with keenest anticipation.

These volumes, edited by a Director and Past President of the club, who has also been so active in the club's life, are a rare addition to American literature. John Muir was a master of the art of writing. In these letters we have not only some of the choicest products of his pen, but an insight into his life and character—a mirror of the inmost thoughts of this wonderful man.

John Muir was an extraordinary type—a genius as far outranking other men of his time as did the prophets of old outrank their fellows in their time. It is impossible to explain the fact of John Muir's existence with scientific laws of heredity and environment. His immediate ancestry, as far as we know, gave no promise of the inspired son who was to add such prestige to the name of Muir. His rare qualities, like those of Lincoln, are only to be accounted for by some rare combination of the forces of nature which result in some "sport" or new type in the plant and animal world. It is certain that his remarkable type of mind was born with him, though unquestionably strongly developed

* *The Life and Letters of John Muir.* By WILLIAM FREDERIC BADÈ. Houghton Mifflin Company, Boston and New York. In 2 volumes. Price, $7.50.

and directed by the hardships of his early environment. The fact that others of his kin, who had the same early education and Scotch Presbyterian training, did not give any evidence of similar powers of immortality convinces us that they were possessed by John Muir alone. When only a little over thirty years old he wrote:

> "Love of pure unblemished Nature seems to over-master and blur out of sight all other objects and considerations."

A little later he writes of a trip into the mountains:

> "I was alone, and during the whole excursion, or period rather, was in a kind of calm incurable ecstasy. I am hopelessly and forever a mountaineer."

He had "a sort of nervous fear of town dark," and the fact that it would make the sun-glow fade out of him so that he would be as "deathly as Shasta in the dark" disturbed him. In any event, he says:

> "I have lived more than a common eternity already. . . . A crust by a brookside out on the mountain with God is more to me than all, beyond comparison."

An irresistible urging drove him on, so that storms, earthquakes, and avalanches, that only served to terrify ordinary mortals, were to him "a cordial outpouring of Nature's love." He feels that the world is not yet ready for storms; but the time will come when "the beauty of storms will be as visible as that of calms."

Anyone who has followed Muir's companionless travels, carrying but little food and no shelter, not only through the wildest portions of the then unexplored Sierra and the mountains of the West, but also into unknown fiords and among the glaciers of Alaska, will gain some little appreciation of the limitless courage and marvelous inspiration of one who did all this through an overwhelming desire to learn truth, and truth alone. Even the Indians of those remote regions could not understand why a man should go out alone in the midst of danger on such adventures, and they fittingly named him the "Ice Chief."

> "Only by going alone in silence, without baggage, can one truly get into the heart of the wilderness. All other travel is mere dust and hotels and baggage and chatter."

In his early explorations he never meant to write concerning them, and had no idea that the public would appreciate what he had to say, so that what he did at great sacrifice of physical comfort was solely for the pure love of the joy and knowledge which he gained.

It seems incredible that a man who could write such wonderful descriptions of what he saw, that read as easily and as naturally as water flows down a mountain stream-bed, should have had such difficulty with his composition. He writes to his friends at different times:

> "I have not written enough to compose with much facility, and as I am also very careful, and have but a limited vocabulary, I make slow progress. . . . And yet I work hard, but the confounded subject has got so many arms and branches, and I am so cruelly severe on myself as to quality and honesty of work, that I can't go fast. . . . I am trying to write another book, but that is harder than mountaineering. . . . In

> word works, even at the best, as you know, I'm slow as a glacier. . . . To me it is hard, far harder than tree- or mountain-climbing. . . . Not the man with the hoe, but the poor toiler with the pen, deserves mile-long commiseration in prose and rhyme. . . . In the beginning of my studies I never intended to write a word for the press. In my life of lonely wanderings I was pushed and pulled on and on through everything by unwavering never-ending love of God's earth plans and works, and eternal, immortal, all-embracing Beauty; and when importuned to 'write, write, and give your treasures to the world,' I have always said that I could not stop field work until too old to climb mountains."

John Muir would have become a great man in almost any chosen line of endeavor. In his youth the inventions which he made, and the practical application to which he put them after leaving college, when employed in a broom factory, give every evidence of the workings of a master mind. All his complicated mechanisms described in his autobiographical volume entitled "My Boyhood and Youth," were made by him with limited tools and entirely without assistance from others. He would have been a great inventor and mechanical engineer.

His sympathetic understanding of the requirements of plants and trees he loved so well resulted in unusual financial success on his orchard near Martinez. After he had put one hundred thousand dollars of profit in savings-banks, he gave up this sort of work as too great an interference with the work he really loved.

John Muir was also a remarkable geologist, botanist, and zoologist. In any of these lines he could have made a world-wide reputation. He was asked by Professor Runkle to join the teaching staff of the Institute of Technology in Boston, and by Asa Gray, Agassiz, and Emerson to take a similar position at Harvard. To Muir, however, while technical and accurate knowledge of nature was fundamental, such truth served only as the doorway to much greater truths lying beyond.

In spite of the fact that to Muir these technical studies were only incidental, nevertheless there is one conspicuous example of his scientific ability that stands out. His theory of the origin of Yosemite Valley, and the major part played by glaciers in sculpturing the rock-forms which resulted in that incomparable valley, were first and most ably set forth by Muir when only in his thirties. It was a wonderful discovery, running counter to the theories of the greatest scientists of that day. But time, with its inexorable exposures of truth, has established the fact that in this regard John Muir was a prophet, and now his glacial theory of the origin of Yosemite Valley is generally accepted by all leading scientists. The story of this great intellectual feat is developed in a most fascinating way by Dr. Badè in these volumes.

John Muir's real power and greatness lay in his ability to interpret nature. In this field is he immortal. To use one of his own expressions, he stood "in the right relation with nature." In word-description and translation of nature's moods into the most exquisite prose poetry John Muir has no peer.

No small part of his sympathetic relation with nature was due to his appreciation and belief that everything he saw was but an evidence of the power

and mountain wonderlands, than his last public effort, the preparation of a little booklet telling in simple language the story of California's trees.

Let's Know Some Trees was written by Mr. Shinn at the suggestion of the editor of one of the larger country papers of California. It contains simple descriptions of seventy California tree species, set forth in language that even children can understand. Thirteen illustrations add to the interest of the booklet, which has been published by the U. S. Department of Agriculture as Miscellaneous Circular No. 31.

It was Charles Shinn's wish that every Californian who loves trees and mountains and the great outdoors might have a personal copy of this little publication, and the United States Forest Service, Ferry Building, San Francisco, announces that free copies may now be secured on request.

Circular Letter from California District
Forest Service, U. S. Department of Agriculture

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MOUNTAINEERING ADVENTURES* Few adventures, indeed, could come to a mountaineer, which are not set forth in most interesting detail in C. E. Rusk's *Tales of a Western Mountaineer*. Evidently born with a love of the mountains, the author began to gratify his longing for high climbs at an early age, and rounded out his third of a century of mountaineering in a final conquest of Shasta's lofty slopes. He also successfully ascended in that period Mounts Adams, Baker, Rainier, Stuart, Hood, and others. All these ascents are so graphically described in the fifteen chapters of his book that any reader with the mountain fever in his blood will immediately make mental preparations for a dash to the nearest range. Mr. Rusk is not only a mountaineer of ability, but a writer as well, and one able to give most alluring accounts of his adventures. You will not be apt to go to the seashore for your summer vacation after you have read his book. P. S. CARLTON

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A STORY OF PLEASANT JOURNEYINGS† *Shanks' Mare*, by Charles Coleman Stoddard, is what might be called a sublimated account of innumerable pleasant journeyings over delightful hills and along the seashore. It might justly be called an impressionistic picture of pleasant places and charming little essays of many things, from the old walking-stick, as companion, to John Burroughs and Thoreau.

The book will appeal to a large number of readers who like the open way. It is not a detailed account, however, of anything or anybody. Memories seem to troop back into Mr. Stoddard's mind so thick and fast and multitudinous that you come away from it with impressions quite as numerous as "the leaves that strow the brooks in Vallombrosa," so famed by Milton.

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* *Tales of a Western Mountaineer*. By C. E. RUSK. Houghton Mifflin Company, New York. 1925. 309 pages. Price, $2.50.

† *Shanks' Mare*. By CHARLES COLEMAN STODDARD. George H. Doran Company, New York. 1924. 217 pages. Price, $2.50.

Stoddard is not a John Muir; and while in one place he refers to John Muir, his interests and his tastes are all of a quieter and a gentler sort than the things that delighted John Muir's heart. You would know that Mr. Stoddard had never climbed the Black Kaweahs or had seen the rushing torrents in the Kings River country. You could hardly believe that he had ever slept under a blanket of snow. His tastes are quiet and civilized, but altogether delightful. He loves good people and good books, and particularly is fascinated with the old trampers whose names have become classic. Even Izaak Walton has a place. Here a charming essay occurs on the value of the faithful dog as a companion over and above the wrong kind of human beings; and there the fragrant weed is likewise set in a jewel-bedecked frame.

For delightful dreams or delightful journeyings along peaceful and charming highways, and for a variegated quiltwork of infinite hues, reflecting the memories of the tramps of a lifetime, *Shank's Mare* stands very high in the literature of the open road.

GEORGE C. THOMPSON

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"SOUTH AMERICA"* The most perfect writing for a busy man who wishes to get acquainted in as short a time as possible with the places he is visiting is Baedeker, or books like it. Baedeker is, however, not literature. It is scientific in its compactness and demands the same concentration and the same attention to business that the most exacting directions of a manufacturing plant could impose upon one. There are other books, the opposite of a Baedeker, which are entirely delightful, filled with descriptions of charming places and charming trips. These you love to pick up on a quiet evening and delight yourself with for an hour or so. But *South America*, by Annie H. Peck, is different from either of these. It is comprehensive, accurate as far as one can judge, and very delightfully written. You drift from the Isthmus to Callao, to Lima, to Cuzco, to Valparaiso, to Buenos Aires, etc., and all in delightful company. It is in a measure historical.

South America might be called an all-embracing and minute set of directions for a complete trip of South America. It tells you what the fare will be and what other incidental expenses you might look for. Throughout the journey it gives you definite names and devotes a paragraph, longer or shorter, to each. It tells you the time of arrival at and departure from hotels, and the interesting things in regard to each of the cities visited is brought out. It even tells the fare on the electric road and advises you how to look out for your baggage when leaving one steamer for another.

The foreword of the book is worth noting: "Is the enjoyment of scenery the first aim of your travels? With ease you may behold some of the finest in the world, much more if you care to take a little trouble. Snow-clad mountains galore rise above twenty thousand feet, dwarfing the Alps into insignificance. There are giants to be admired not only from afar, as tourists in India gaze upon the Himalayas, but from nearer points, even from their very foot, and smoking volcanoes, cliffs more lofty than those of Yosemite; wonderful lake

* *South America:* An Accurate and Descriptive Guide to South America. By ANNIE H. PECK. George H. Doran Company, New York. 1924. 359 pages. Price, $3.50.

scenery, including the highest sheet of water,—12,500 feet, where steamboats regularly ply.

"Or again, do strange people and cities interest you? You may wander in towns old and quaint, or in cities quite up-to-date. Or do you care for the antique? These also abound. Old cities of the dead are there, and others where the new civilization rises above or beside the old temples."

The volume is charmingly and profusely illustrated with very realistic photographs, which places you *en rapport* with the whole life and scenery of the country. There is also a very valuable map of South America for reference, and one of its most valuable points is that it contains an exceedingly well-selected bibliography of books on South America and Panama, and likewise has a good index.

On the whole, it is a most charming and interesting book, and at the same time is all that is needed for the traveler in the way of direction, and no one could afford to be without it who is making a collection of excellent books of travel on South America. GEORGE C. THOMPSON

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"MONT BLANC"* A very attractive book dealing with the Mont Blanc region and the Valley of Chamonix. It is handsomely bound, and illustrated by one or more photogravures on each page. It is evidently written by a true lover of the mountains, for from the pen of no other could we have the enthusiastic descriptions of this glorious region. The first chapter is devoted to the "Call of the Mountains." Then follows a description of the Vale of Chamonix and of a trip thereto. The author then takes up the grand old mountain itself; first, its history and the years of struggle prior to its final conquest, then a detailed description of the mountain itself and the routes of ascent, and lastly a description of the glaciers which surround it and of the wonderful cirques and aiguilles in the vicinity. The book will prove valuable to a prospective traveler in any portion of the Alps. J. N. L.

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"CAMP GRUB"† This is an excellent manual of practical camp cooking and general camp methods. It deals with food lists, food preparation, cooking utensils, and accessories; in general, with things pertaining to camp. It does not consider transportation of the outfit, whether by knapsacking, packing, or over roads. The book covers its field very completely, and will prove of use, not only to the novice, but, by suggesting many original ideas, will be useful to the experienced camper.

The author starts by considering "grub lists" and the food values of the various items therein. On the whole, these lists are rather adapted to permanent camp or the automobile camp than to strenuous travel in the High Sierra. He does, however, give the Army travel ration and the list recommended by the U. S. Forest Service. He then mentions various convenient

* *Mont Blanc.* By ROGER TISSOT. The Medici Society, Limited, London. 1924. 140 pages. Price, $3.00 in United States.

† *Camp Grub:* An Out-of-Doors Cooking Manual. By ELON JESSUP. E. P. Dutton & Company, New York. 1924. 274 pages. Price, $4.00.

camp foods, and takes up in order the preparation of various foods, beginning with meats and game, then fish, then the use of the frying-pan, the preparation of cereals, breads, and vegetables. There is a chapter on cooking with nature's tools, where utensils are reduced to a minimum, after which considerable space is devoted to the "dish list." The book closes with chapters on the making of the camp itself, the fireplace, the stove, the fireless cooker. The last chapter deals with camp sanitation. J. N. L.

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"WONDERS OF THE HIMALAYA"* This is a delightfully written book by a well-known explorer on a most inspiring subject. The author as a boy used to dream of a time when he might explore the great Himalaya range. The opportunity came to him at an early day, when the British Government sent him, as a young army officer, to explore caravan routes and possible passes across the Himalaya between Turkestan and India. The first white man to cross some of these passes, he tells the story of his adventures through wild and hostile country in a most fascinating way. His sympathetic interest in his native companions, and his keen appreciation of the wonders of the highest mountain range in the world, are all told with a rare charm. Like John Muir, he was not content with the mere outward appearance of what he saw, and the majesty and splendor of those great snowy summits that pierce the sky "remain to us a joy of which we never tire. . . . What stays forever with us are the grandeur, purity, and light, and these have power to draw us everlastingly to Heaven." W. E. C.

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"DOWN THE GRAND CANYON"† Scattered voyages, not only through the Grand Cañon proper, but also down the entire Colorado River from southern Utah through Glen, Marble, Grand, Boulder, and Black cañons, and thence through the lower valleys and delta region—with a side trip to the Salton Sea—are leisurely recorded by Lewis R. Freeman in this volume. Below the cañons these excursions were the author's private ventures, fitting in with his general schedule, which appears to embrace at least one boat trip down each important or interesting river of the globe. In the cañon region, Freeman served in the capacity of "dollar-a-year" boatman with the United States Geological Survey Reconnoissance through Glen, Boulder, and Black cañons in 1922, and surveys of Marble and Grand cañons in 1923.

The volume takes one back unconsciously to Freeman's "In the Tracks of the Trades" and to a comparison of its style with O'Brien's "White Shadows in the South Seas." "White Shadows" gives us a brilliant series of pictures—often an entire scene in the flash of a single phrase; "In the Tracks of the Trades" carries us along on the voyage to share the daily incident of adventure.

In the Colorado River voyages, also, the author shares with the reader the

* *Wonders of the Himalaya.* By SIR FRANCIS YOUNGHUSBAND. E. P. Dutton & Company, New York. 1924. 210 pages. Price, $4.00.

† *Down the Grand Canyon.* By LEWIS R. FREEMAN. Dodd, Mead & Company, New York. 1924. 371 pages. Price, $3.50.

daily incident of river and camp—"bucking" the riffles and swift currents in the up-stream journey through Glen Cañon from Lee's Ferry to Hall's Crossing, running the rough water and boulder-choked rapids in Marble and Grand cañons, and following more peacefully the less turbulent stretches of the river down through the desert valleys, often "scouting a channel on foot"—and then through the brush and sloughs of the intricacies of the delta.

A "personnel rating" card would rank Freeman 100+ as scout and observer, but 0 — in the service of supply. The casual nature of his boats and equipment on the lower river are astounding, and offer an easy explanation of many of his difficulties; but these detract in no measure from a very interesting log.

F. H. FOWLER

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"BEAUTIFUL MEXICO"*

Vernon Quinn, in *Beautiful Mexico,* makes one realize what a *terra incognita* our neighboring republic is. The first chapter deals with the mountains, forests, waterfalls, and other natural features of Mexico, all of which are interesting to Sierra Club members. Orizaba is the highest peak in North America outside of Alaska. Popocatepetl and Ixtaccihuatl are nearly as high.

The book as a whole is more a recital of history, particularly of the conquest by Cortez and the early period, but there are good chapters on the war for independence, the Diaz régime, and the recent revolution. The last two chapters describe the immense mineral wealth, and the Indian tribes. The author has given considerable attention to legends and their relation to history, religion, and the natives.

ERNEST DAWSON

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"TRAIL LIFE IN THE CANADIAN ROCKIES"†

"All real weather is in the heart, and some of the most terrible days on the trail shine brightest in the light from within." Thus speaks the writer of *Trail Life in the Canadian Rockies,* and this is the spirit in which he and his wife and a few friends go on their way through sunlit azure-skied days or in bitter cold and storm. Riding good trails in a noble forest, or toiling through a wild gorge in the trackless wilderness of the Saskatchewan, where even the guide had been but once in his life, and that years before; climbing to a high pass and beholding a world of gleaming peaks; struggling desperately through dangerous muskegs, and making camp in a downpour of icy rain—all was lived through with a high spirit of rejoicing.

It is satisfying to read a book like this—there are too few of them—where just the right word is found and we see vividly what the writer is seeing.

In each of nine summers Mr. and Mrs. Mitchell and their little party make a trip in some remote region. To the headwaters of the Athabasca, of the Columbia, of the Yoho; among the Selkirks of the Big Bend; about Robson and Assiniboine; into the Saskatchewan wilderness. The book is made by

* *Beautiful Mexico.* By VERNON QUINN. Frederick A. Stokes, New York. 1924. 390 pages. Price, $4.00.

† *Trail Life in the Canadian Rockies.* By B. W. MITCHELL. With illustrations. The Macmillan Company, New York. 1924. 269 pages. Price, $3.00.

Macmillan, and has many very beautiful pictures, all from photographs, and most of them taken by the author. Glaciers, trees and flowers, birds and animals are a part of the story, and so also are some extremely interesting and humorous guides and hunters, and the hard-working cayuses, with their tricks, and the jolly little dog "Muggins."

The two things for fatigue are "tea and sleep, in the order named. Ready to drop, you light a bit of fire, draw a pot of rich amber tea: straightway rest steals upon you. Soon, with zest and delight you set about the task of creating a home."—"When you get in a hurry, camp two days to rest and think it over." Leaving the highway and turning sharp into the forest, "in a twinkling the curtain of the wilderness was draped about us and the silent places swallowed us up." Of a forest destroyed by fire—"to one who loves the woods it was like a home bereaved by death."

The greenish flood of the Takkakkaw, a river in volume, drops eleven hundred feet, a roaring spray-veiled fall. In a gale it "slowly, majestically oscillates—right, left; right, left—a Titanic pendulum beating the slow seconds of geologic time." The ranks of mountains—"they glitter in the sun, the army of the giants. Peak beyond peak they 'rise, shine and give God the glory.' They fire and fever the blood. They seize and claim you for their own." —"The beauty of a great mountain is a serious, compelling beauty: it is like beauty of character compared to mere beauty of feature: it is not admirable merely; it is worshipful."

Simpson Summit "is a truly wonderful pass, a rolling prairie at seventy-eight hundred feet, blazing with flowers, splendidly grassed, and ideal as a big-game country. Late snow-drifts here and there still gleamed among the grass and flowers. Beautiful lakes in miniature on the lofty plateau mirrored the floating clouds. In a circle about us grandeur ran riot. Enormous peaks, black precipices, blue glaciers, white snow-fields, vied with each other in splendor. And far away to the southward, towering above the world to the very arches of the sky, magnified and unearthly in the light fire-haze, Assiniboine rose, King of them all. . . . It is a strange thing how great mountains gain over the human mind and will an influence that never can be shaken off. They impress their own wild freedom on the heart."

AURELIA S. HARWOOD

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"THE MAKING OF A MOUNTAINEER"*

The author is, at the age of thirty-six, one of the foremost of British mountaineers. In this rather ponderous volume he writes in the minutest detail of each of his mountaineering experiences, from the scrambles of his boyhood to his altitude record of 27,235 feet on Mount Everest in 1924. The first chapter, telling of early experiences in the Alps, is interesting in story and contains much advice that could profitably be followed by amateur climbers. There follows a chapter on climbing in Corsica, a subject that immediately grasps the attention; the text, however, gives one the impression of an elaborated diary rather than an attempt at exposition. A number of thrilling exploits in the Alps are re-

* *The Making of a Mountaineer.* By GEORGE INGLE FINCH. Arrowsmith, London. 1924. 340 pages. Price, $7.50.

corded in the next two hundred and fifty pages; but the effect of these is all but lost because of the great preponderance of incidental facts. Time and again the "game" of mountaineering seems to have been made a business. We read: "We finally decided to regain the hut by climbing over the Dossenhorn. . . . By so doing, one more ascent would be added to the three already bagged (that day)." Two of the last three chapters contain a clear and concise account of the 1924 attempt to reach the summit of Mount Everest. There can be no doubt that the author is a great mountaineer. He has given us a record of many hazardous ascents. We wonder, however, if we who climb to fewer summits do not enjoy our ascents more thoroughly. A. F. H.

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"SEEING CANADA"* John T. Faris has added another to his list of valuable and readable guide-books. *Seeing Canada* is a well-made book, generously illustrated with scores of doubletone prints and a beautiful frontispiece in color. The aspect of the land, so beautiful and varied, is set before us. The immense industries are well described.

The foreword dwells on the great future possibilities of the country, and says that travelers in Canada behold more than magnificent scenery. They become aware of a country of tremendous power whose development has only begun.

Very pleasantly interwoven throughout the book is a great deal of historical information and many of the Indian legends and romantic tales of the early days. It is interesting reading as well as a good guide. The contents are comprehensive, and an excellent index adds much to its usefulness.

AURELIA S. HARWOOD

* *Seeing Canada.* By JOHN T. FARIS. With illustrations and index. J. B. Lippincott Company, Philadelphia and London. 1924. 265 pages. Price, $6.50.

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